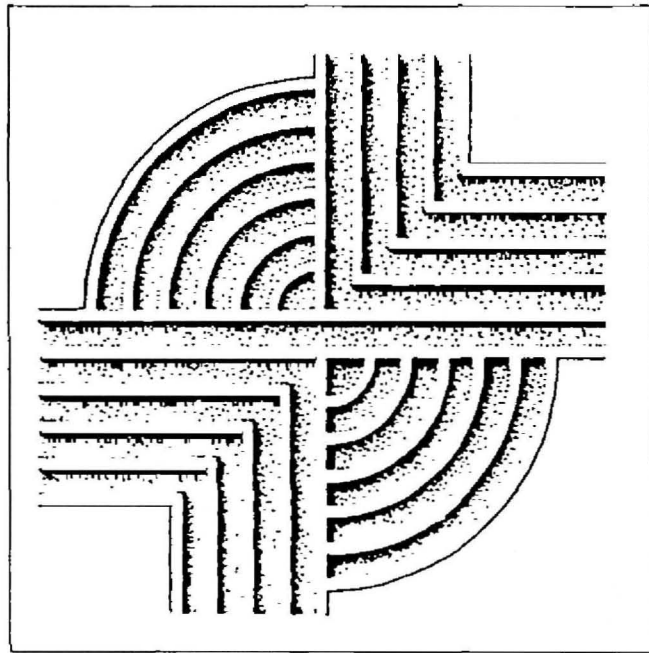


**AN ARCHAEOLOGICAL SURVEY AND  
PRESERVATION PLAN FOR  
THE BECHTLER MINT SITE, 31RF157\*\***



**CHICORA RESEARCH CONTRIBUTION 177**

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PRESERVATION PLAN FOR  
THE BECHTLER MINT SITE, 31RF157\*\***

Prepared For:  
Rutherford County  
and  
Rutherford County Historical Society

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Chicora Foundation Research Contribution 177

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## ABSTRACT

This investigation, conducted by the non-profit Chicora Foundation in mid-October 1995 for Rutherford County and the Rutherford County Historical Society, was designed to provide an intensive archaeological survey of the Bechtler Mint archaeological site, 31RF157\*\*. Although this site has been known to historians, numismatists, collectors, and the local population, the site didn't receive any professional archaeological attention until a preliminary assessment was prepared in March 1995. This study encouraged the County and Historical Society to seek the funding for a more intensive archaeological examination — represented by this document.

Chicora's field investigations incorporated approximately 0.6 ha of the 1.2 ha site area owned by the county. Including tests at 3- and 6-meter intervals, 324 30-cm shovel tests were excavated. These included the initial 6-meter interval tests over the entire site, coupled with 3-meter close-interval testing at four different site areas. A metal detector survey was conducted of the entire site which identified three distinct areas. One of these, associated with almost no shovel test artifacts, was also subjected to metal artifact recovery. The 0.6 ha site area explored by these investigations was surveyed and a detailed contour map, showing natural and cultural features. Finally, four 1-m units were excavated in three different site areas.

Overall the site exhibits very good integrity. Plowscars are uncommon and site looting, while clearly present and quite bad, seems to be concentrated in one area of the site. Although the site has been planted in pines twice and logged once, little evidence of this activity could be detected archaeologically. And finally, while there are areas which exhibit serious erosional loss of A horizon soils, they are typically confined to the side slopes and have not dramatically impacted the archaeological site. In most areas of the site, between 10 and 25 cm of

intact A horizon soils were found overlying the typical red clay subsoil.

Several areas of clear artifact concentrations were identified. One appears to represent the Bechtlers' house (and mint), another appears to be a utility building, and the function of several other areas cannot, at present, be determined with any degree of assurance. The site has produced a wide range of both kitchen and architectural artifacts, as well as a few which are almost certainly associated with the minting operations which took place on-site during the middle of the antebellum period.

This study provides adequate document to support the nomination of the site to the National Register of Historic Places under Criterion D (the potential to yield important information to the history of community and State). The site is also likely eligible for nomination under Criterion A (association with historic events and activities).

In addition to the examination of the archaeological data, this study was also directed to the development of a preliminary archaeological preservation and interpretation plan for the site. Our initial assessment is that the site has good potential for heritage tourism. It has equally good potential for use as a local passive park. Finally, it has exceptional potential for use in educational programs, integrating history and science. Each of these uses, however, requires (1) protection of the site, (2) development of the site, (3) promotion of the site, and (4) interpretation of the site. Chicora's study outlines some of the issues involved with each of these actions.

By *protection* there is one very specific issue which must be addressed — site looting and vandalism. The site has historically been attractive to those with metal detectors and shovels who wish to convert the public's history into private ownership. Such behavior is reprehensible and will



destroy the site, making it worthless to the citizens of Rutherford County and North Carolina. We recommend that the County pass an ordinance making it illegal to damage, disturb, dig, or remove artifacts from the site. Coupled with such an ordinance must be education of law enforcement.

*Development* includes a wide range of activities. The site should be selectively logged, Bowater should be encouraged to log a perimeter around the site for fire control, a road and parking must be established to allow use, the entire site must be fenced, and the fence around the shaft must be repaired. Trails must be established which are accessible to the disabled and which are appropriate for the nature of the soils. Irregularities in the ground (pot holes and sink holes, for example) must be leveled through the addition of soil as appropriate. Ground cover must be established in the logged areas. Raised planting beds can be established and focused on native North Carolina foothill plants.

*Promotion* of the site must include not only acquainting the county population with these activities, but must also focus on attracting outside visitors. One approach we recommend is the development of a full color brochure for use at welcome centers and distribution by the local chamber of commerce. Promotion should also include integrating the site into history and science curricula at local middle and high schools.

All of these activities, however, must be tied together through site *interpretation*. This can be accomplished through the use of site signage and development of curricula packages for the local schools.

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The grant was provided to Rutherford County and the Rutherford County Historical Society and so it is appropriate to thank them for their foresight and for interest in preserving and protecting the heritage of their county. We also want to thank them for allowing Chicora Foundation to participate in this project. In particular, we want to thank Mr. Jim Womack, of the Historical Society, and Mr. Robert W. Bole, of the County Finance Office for their support. Mr. Fred Burgin assisted us in making our arrangements and obtaining accommodations. Ms. Julia Hensley graciously offered us support facilities while conducting the project and also oversaw press and media arrangements.

Assistance in the identification of the landscape plantings at the Bechtler site was provided by Dr. John Nelson, Director of the A.C. Moore Herbarium at the University of South Carolina. We greatly appreciate his support and assistance in this project.

We also want to thank all the staff of Rutherford County who were so kind to us during our work and provided a variety of services. In addition, the members of the Historical Society were very gracious and hospitable during our stay in Rutherfordton and we appreciate their interest in the site, its history, and our investigations. We hope that this study offers them the support and encouragement to continue their preservation efforts.

Finally, we want to thank Ms. Natalie Adams, the field director for this project, and Ms. Mary Rossi, an intern working with Chicora Foundation on the Bechtler project. We appreciate their dedication, interest, and efforts in making this research successful and rewarding.

## INTRODUCTION

### Background

Although the Bechtler Mint site, located about 4.6 km north of Rutherford in Rutherford County, North Carolina, has been known to the local population, treasure hunters, and historians for at least the past 100 years, it has only recently attracted professional archaeological attention. The Rutherford County Historical Society and Rutherford County sought, and obtained, \$10,000 funding from the North Carolina Division of Archives and History, Department of Cultural Resources, through their State Grants Program. In early 1995 Rutherford County requested that our colleagues at Archaeological Research Consultants, Inc. conduct an initial archaeological assessment of the site. Their study, which apparently involved only part of a day actually on-site, focused on a brief overview of the history of the site, a review of the available land-use records and probable archaeological features, and a very general discussion of the possible archaeological approaches for the study of the site (Hargrove 1995).

Although the report describes no shovel testing, one member of the Rutherford County Historical Society recalled that a few core samples were taken. Regardless, the report does not mention that archaeological remains were recovered nor was the site recorded and given an archaeological site number, although the Archaeological Research Consultants report does note the presence of brick on the surface and alludes to other possible features. It did, however, recommend an intensive archaeological survey of the tract, combined with some limited test excavations (Hargrove 1995:9).

This brief reconnaissance spurred the County and Historical Society to seek additional archaeological investigations at the site, generally following the recommendations offered by the initial assessment. Shovel testing was requested,

coupled with some degree of site testing. In addition, extant above-ground features were also to be mapped. In response to a Scope of Work, Chicora Foundation provided an outline for additional work — essentially an intensive survey of the tract — on June 6, 1995. This proposal was accepted by the Historical Society on July 28 and an initial meeting was scheduled for September 1. At that time we discovered that while an intensive survey was indeed sought, there was also an interest in better understanding development and interpretation options for the site. In effect, it appeared that a preservation plan was also being sought. Although the funds (less than \$5000) were inadequate to provide a detailed plan, Chicora Foundation agreed to provide an overview which we hoped would be useful in focusing attention on immediate needs and help the Society seek additional funding.

An agreement for the proposed work was approved by the Historical Society and County on September 25, 1995 and the work was scheduled for October 16 through October 20. We hoped that by this time at least some of the vegetation would be down and the mine site would be more amenable to the kind of detailed survey work we had in mind. The field work was conducted during this period and a total of 111 person hours, over 12 person days, were spent at the site. This report provides an overview of the work undertaken, the results, and our recommendations for future studies and site enhancement.

### Scope and Goals

We realized that there were essentially three basic goals for the study being proposed by the Rutherford County Historical Society. Some were clearly understood and articulated, while others were present but perhaps not as well detailed. In addition, some goals were advanced by the Historical Society, while others appeared to be of greater importance to the Department of

Cultural Resources or the archaeological community. Some goals were of immediate concern, while others focused on longer-term issues, such as the potential of the site to help address research questions.

- The first and primary goal was clearly to better understand the archaeological materials present at the site. Are archaeological remains and features present? How badly have they been impacted by site looters, silviculture, and other land use activities? What are the nature of the remains present? Can they tell us more about how the Bechtlers lived and the activities which took place at the site? Can evidence be found of the Bechtlers' minting and mining activities? These and a host of other questions were certainly on the minds of the Rutherford County Historical Society.

- A second goal was to determine the eligibility of the site for inclusion on the National Register of Historic Places. While only briefly mentioned in the Scope of Work, eligibility is likely seen not only as verifying the site's importance to the community, but also as a requirement for additional funding.

- A third goal was to help the Historical Society focus future preservation and interpretation efforts at the site. This study was to provide a clear path for additional work and efforts.

The Scope of Work issued by Rutherford County and the Rutherford County Historical Society specified that they wished to conduct "an archaeological and historical resource inventory and evaluation" of the Bechtler Mint (Anonymous 1995). The Scope specified only limited background research (sufficient to achieve a degree

of familiarity with the site), since a rather detailed historical overview has been provided by William Bynum (1989). Instead, the focus was to be on "intensive surface and limited subsurface testing" of the site. Although the methods were to be "of the contractor's choosing," the work was intended to include the "mapping [of] all visible surface remains (tunnel mouth, roads, ornamental plantings, brick concentrations, building piers, graves, etc.), a metal detector survey, and systematic screened shovel tests at close intervals" (Anonymous 1995:4).

Chicora's proposal for the investigations focused on an explorative research design since the work was the first intensive archaeological study at the site. Although an overview was provided by the Archaeological Research Consultants' study, it did not provide much specific on-the-ground information. We proposed a total of 10 person days at the site, or 80 person hours. This time was to be broken into basically six tasks:

- A 6 m grid would be established over the approximately 0.4 ha site and at least one permanent datum point for vertical and horizontal control would be located for easy recovery by future investigators. This grid would serve as the control for all activities at the site.

- Shovel testing of the site area would be conducted at 6 m intervals with all fill screened through 6.25 mm mesh. This work would provide an "overview" of archaeological remains at the site, providing information on the density of various remains and possible structural locations, and also helping to evaluate site integrity.

- To assist in the identification of more ephemeral structures, a controlled metal detector survey would also be conducted. Using a Tesoro Bandito II™ metal detector with an 20.5 cm

concentric coil (electromagnetic type operating at 10KHz), this activity was designed to identify nail concentrations which might mark building footprints.

■ Once areas of potential interest were found by either shovel testing or metal detecting, we proposed to reduce the shovel test interval to 3 m in the hope of identifying architectural or other features. This information would be useful in the placement of test units (discussed below) and interpreting the concentrations.

■ In areas identified *only* by the metal detector survey (i.e., in areas which produced no shovel test artifacts), we proposed a controlled retrieval of the metal remains. This would help ensure that the function of these concentrations might be identifiable.

■ We proposed the excavation of several 1 meter squares as time allowed. These excavations would be particularly useful in assessing National Register eligibility and would provide greater detail concerning the condition of the site, the nature of the artifacts present, and the potential for additional research.

As previously mentioned, this Scope was further refined by pre-bid discussions with Mr. David Moore, Field Archaeologist with the Department of Cultural Resources and during an on-site meeting with the Rutherford County Historical Society on September 1. Mr. Moore, for example, indicated that the Department of Cultural Resources preferred the work to be conducted using the metric system. Although this system is generally unfamiliar to most Americans, we have complied with this request. Table 1 provides some general equivalents which may be helpful to readers of this study. Mr. Moore also indicated

Table 1.  
Metric Equivalents

LENGTH		
kilometer	km	0.62 miles
meter	m	39.37 inches or 3.28 feet
centimeter	cm	0.39 inches
AREA		
hectare	ha	2.47 acres

that it would be acceptable for the artifacts to be curated by the Rutherford County Historical Society, although he preferred that the cataloging system be consistent with that used by the Department of Cultural Resources. He also indicated that the approximate site area involved in the study would be about 0.4 ha. Our on-site meeting with representatives of the County and Historical Society revealed the interest in , and indeed need for, some type of preservation planning or assessment accompanying the study.

Once identified and examined, the second goal, that of assessing the site's potential eligibility for inclusion on the National Register of Historic Places. It is generally accepted that "the significance of an archaeological site is based on the potential of the site to contribute to the scientific or humanistic understanding of the past" (Bense et al. 1986:60). Site significance in this study was evaluated using the recently published process of Townsend et al. (1993).

This evaluative process involves five steps, forming a clearly defined, explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site *might* be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of "important" research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites actually being nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation. We have opted in this study to provide the historic context in the format of a brief overview of historic information concerning the site. Obviously it would also be appropriate to integrate additional background concerning other nineteenth century farmstead studies in North Carolina. Likewise, the identification of "important" research goals was achieved by incorporating research goals and questions in this overview, outlining significant questions to the discipline and the public. Additional background research and synthesis of a wider range of historic archaeology comparable to the project area would likely result in a greater depth and breadth of research questions.

Otherwise, the evaluative process was essentially the same as outlined by Townsend et al. (1993). The data sets identified during the survey, such as the quantity of different artifacts types, is discussed. Reference is made back to the historic overview and the research questions the site might be able to address, while at the same time the site's integrity was clearly defined. We opted to use the integrity areas developed by Townsend et al. (1993:17-23) since they are more commonly used with National Register sites than the archaeological properties developed by Glassow (1977). Those most important for archaeological sites being evaluated for eligibility under Criterion D (sites

that have yielded, or may be likely to yield, information important in prehistory or history) are locational integrity, design integrity, integrity of materials, and associative integrity.

Locational integrity means that discernable patterning is present. If a site lacks patterning, if the artifacts are displaced, if activity areas are no longer recognizable, then it likely lacks locational integrity. Integrity of design is most often addressed as intra-site artifact and feature patterning. Integrity of materials is typically seen as the completeness of the artifact/feature assemblage or the quality of features or artifact preservation. Finally, associative integrity is often examined in the context of how strongly associated the data set is with important research questions.

The final goal was to help the Rutherford County Historical Society preserve and interpret the Bechtler site. This goal incorporates a broad range of issues in education, landscape planning, heritage tourism, economics, and archaeology. It deserves, frankly, as much funding as was given over to archaeological research. Although it cannot be dealt with in as much detail as it deserves, we have attempted to provide some basic guidance and direction. Issues have been raised which require additional study. Other issues have been raised which require a decision on the direction that site interpretation will take. Additional, detailed, planning is necessary for the long-term preservation and protection of the Bechtler Mint site. This study should be seen as but the first step.

### Curation

An archaeological site form for the Bechtler Mint site has been filed with the Archaeology Branch, Department of Cultural Resources and a site number, 31RF157\*\*, has been assigned.

The original field notes, photographic materials, and artifacts resulting from Chicora Foundation's investigations at the Bechtler site have been curated with the Rutherford County Historical Society. Duplicates of the field notes, photographic materials, and artifact catalog have been filed with the Department of Cultural Resources. The artifacts from this study have been cataloged using the standard system of the



Archaeology Branch, although no accession number has been assigned to the collection. Cataloging has used specimen numbers xxx through xxx. The artifacts have been cleaned and/or conserved as necessary. Further information on conservation practices may be found in a following section. All original records and duplicate copies were provided to the curatorial facilities on pH neutral, alkaline buffered paper and the photographic materials were processed to archival permanence.

## NATURAL SETTING

### Physiographic Province

Rutherford County is situated in western North Carolina about 25 km north of Spartanburg, South Carolina and 120 km west of Charlotte, North Carolina (Figure 1). The county lies almost entirely in the Piedmont, although a very small portion of the county's northwestern corner evidences steep slopes and quite rugged mountainous slopes.

The Piedmont, bounded on the east by the Fall Line and on the west by the Blue Ridge scarp, is about 320 km wide in North Carolina. The name itself means "foot of the mountains," an appropriate term for topography which is characterized by rolling eroded plateaus, rounded hills, and low ridges. Some geographers divide the region into the "lowlands," with their generally lower elevations, and "uplands," such as the Rutherford area which is characterized by elevations up to about 450 m above mean sea level (MSL).

The western section of the Piedmont includes the headwaters of several significant rivers: Roanoke, Tar, Neuse, Cape Fear, Yadkin, Catawba, and Broad. Rutherford County is dominated by the Broad River, which flows generally south through the region. The Main Broad runs on the western side of the county and then turns to the east and passes along the southern side. The Second Broad runs through the center of the county from north to south. The First Broad passes through the northeast corner of Rutherford County. Drainage is controlled by the slope of the Piedmont and is further modified by the complex rock structure of the area (including a series of northeast-southwest trending belts). Most of the major streams and rivers, once past the mountainous areas, are associated with broad belts of bottom lands of great fertility. Remnants of more resistant rock, known as "monadnocks," form high hills and crests of unweathered rock

standing above the more weathered and eroded terrain. The mountains rise abruptly from the Piedmont along an escarpment known as the Brevard Fault. The eastern portion of mountainous North Carolina consists of the Blue Ridge, with elevations to about 1220 m and a few peaks to nearly 1800 m. Usually classified as open, low mountains, much of the area is in relatively gentle slopes.

The Piedmont has always dominated the topography of North Carolina, giving rise to many descriptions. One recounts that:

the tumultuous continuity of mountains subsides into gentle undulations, a succession of hills and dales, a variety and charm of landscape, alike different from the high, uplifted mountain elevations and the flat monotony of the plains or levels of the east. Every step brings to view some new charm, some new arrangement of the rounded hills, some new grouping of the tracts of forest which still cover so large a part of the country. The hills, indeed, in their gracefully curving outlines, present lines of beauty with which the eye of taste is never satiated. These are attractions which depend upon the permanent features of the landscape, and which, thought infinitely heightened in their effects by the verdure of spring and summer, are only brought into fuller relief by the nakedness of winter (State Board of Agriculture 1896:24).

The Bechtler site, which is only about 5 km north of the county seat of Rutherfordton, is

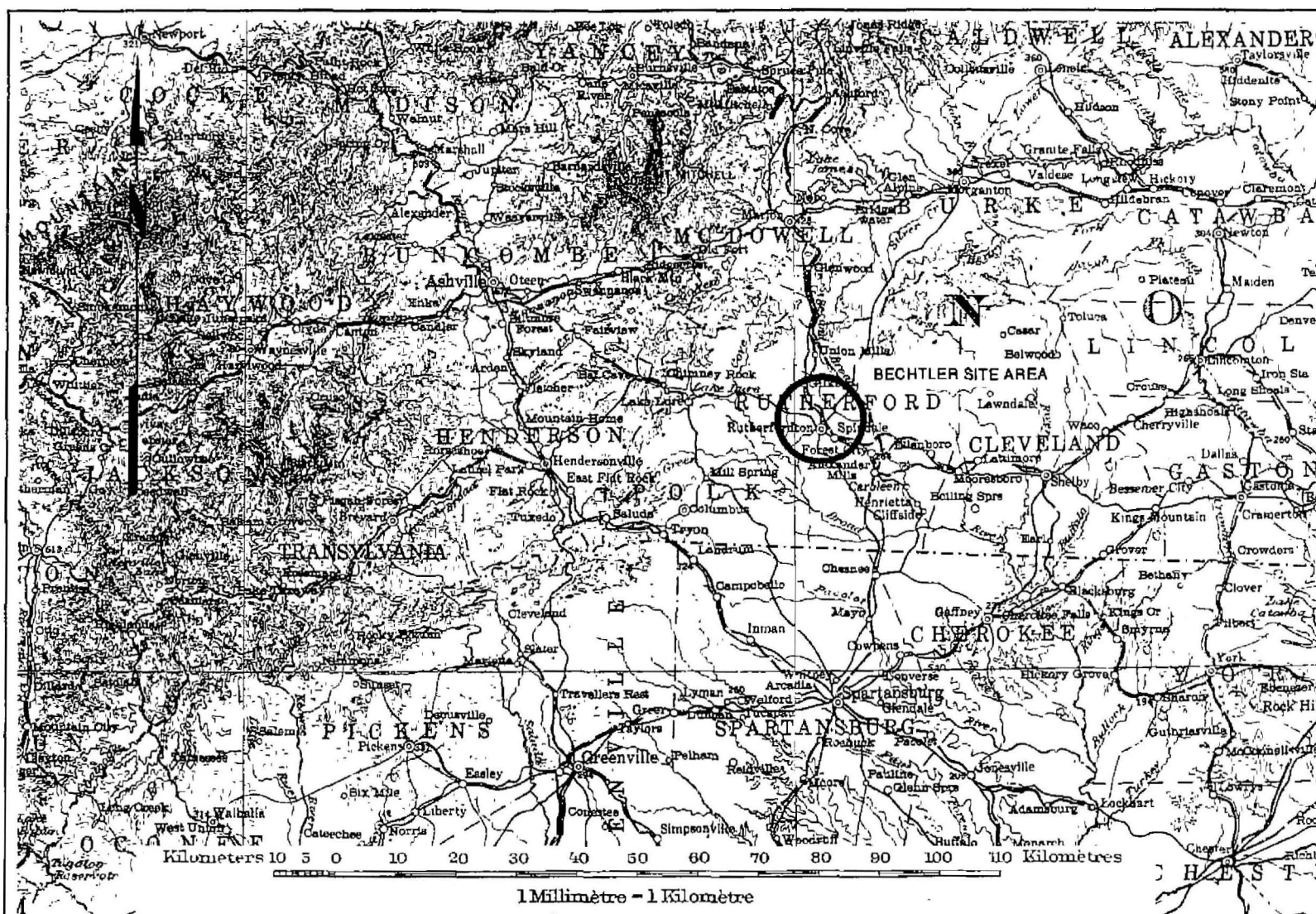


Figure 1. Vicinity of the Bechtler site in Rutherford County (source: U.S.G.S. South Carolina 1:1,000,000).

off SR-1532, Gilboa Church Road, 0.7 km north of its intersection with U.S. 221. The 1.2 ha site owned by Rutherford County is at an elevation of 305 m and consists of a rectangular parcel which slopes to the northeast, southeast, and west-southwest (Figure 2). Northeast of the tract is a small intermittent creek which flows northward to a tributary of Catheys Creek. As will be seen in the following sections, the bulk of the archaeological materials appear to be associated with the relatively level ridge crest which runs north-northwest by south-southeast.

The site is bordered to the southwest by an abandoned railroad spur, now owned by Rutherford County (Figure 3). Just beyond the railroad is Gilboa Church Road, named for Gilboa Church about 1.4 km to the north. This road represents the remnants of old U.S. 221 and was apparently built in the first half of the twentieth century, replacing the Jaynestown or Jeanstown Road, portions of which are still visible just east of the railroad on the Bechtler site (Figure 4). The property around the Bechtler site is owned by Bowater, Inc., a timber company with major holdings in the region.

#### Climate

North Carolina as a whole lies within a general climatic region known as the Humid Subtropical. Moisture is adequate throughout the year, historically supporting very dense forests and an exceptional range of agricultural crops. Temperatures are moderate with long (and often hot, humid) summers and brief winters (with cold, dank conditions). Snowfall occurs, but is usually limited to the mountains. Gade et al. note that:

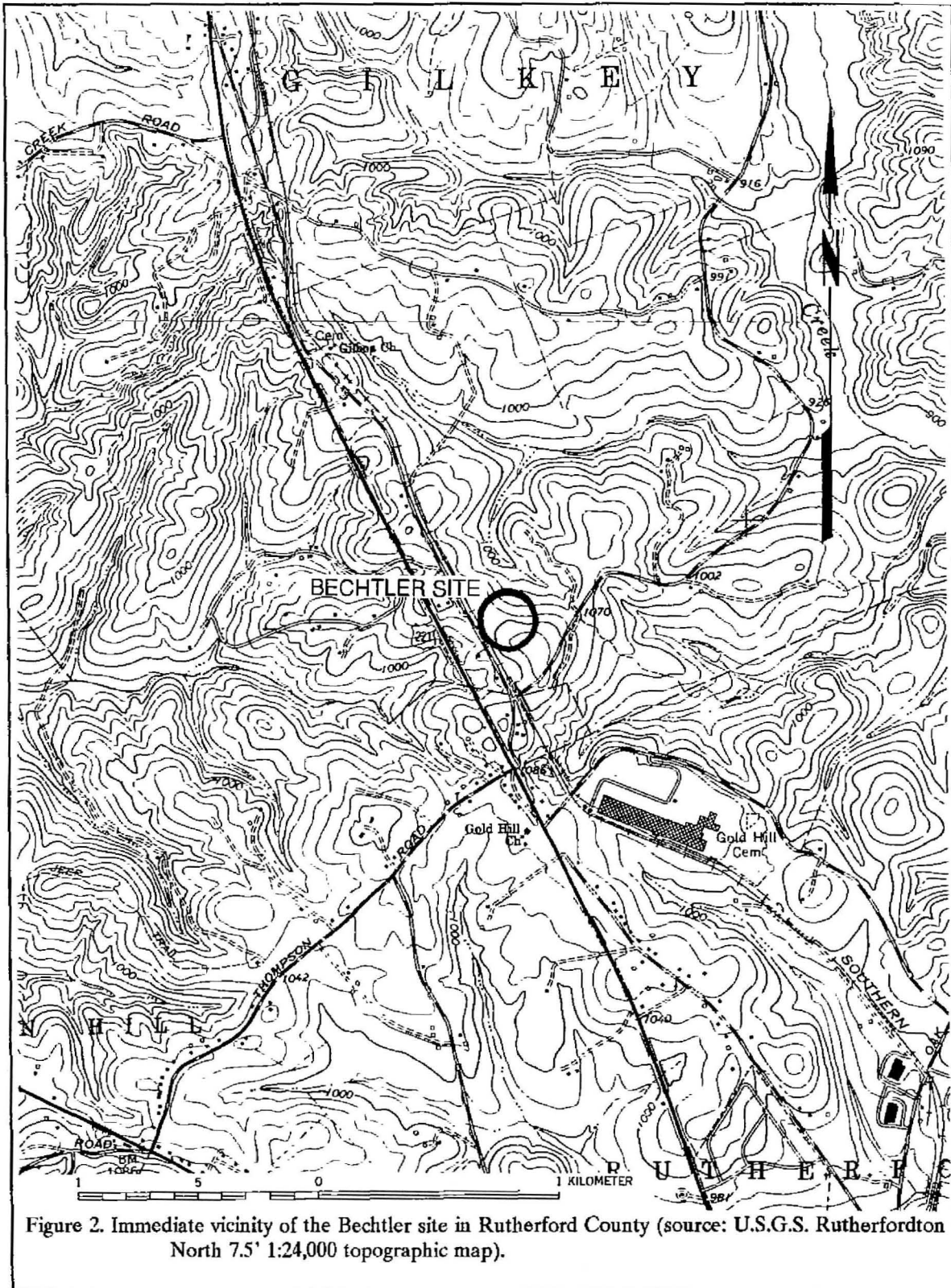
air masses accounting for this climate are controlled by a variety of locational phenomena such as latitude, altitude, mountain barriers, and land and water surface differences. . . . Warm, moist air from the maritime tropics dominates summer conditions while cooler, drier continental polar air controls winter weather (Gade et al. 1986:15).

In general, the Piedmont enjoys this favorable climate. The relatively moderate temperatures, coupled with adequate precipitation and generally well drained clay soils creates a setting favorable for a wide range of crops and native plants. The average winter (January) temperature for Rutherford County ranges from about 6° C in the northwest to about 8° C in the southeast. The average summer (July) temperature is consistent across the county at about 25° C. This marked seasonal difference is almost entirely the result of the difference of the angle of the sun above the horizon during the different seasons. Precipitation in most of Rutherford County is about 120 cm a year.

The State Board of Agriculture noted that Rutherford County was an exceptional agricultural area, representing the western limit of cotton culture in North Carolina (State Board of Agriculture 1896:394). In addition, "the whole county is favorable to fruit — apples, peaches, cherries, melons, and grapes — and also to potatoes" (State Board of Education 1896:394).

#### Geology and Soils

North Carolina exhibits increasing age and complexity of rock types from east to west, resulting from the various periods of uplift and subsidence with accompanying erosion and later deposition of materials. The Piedmont contains a range of primarily crystalline rocks alternating with sedimentary rock in down faulted basins. One such area, the Carolina Slate Belt, is derived from volcanic sediments and is an important source of fine grained quarry rock as well as a range of raw materials for Native American knappers. In the western part of this slate belt, especially in Davidson and Cabarrus counties, there are many veins impregnated with gold bearing ores. Situated between the Brevard Fault to the west and the Gold Hill Fault to the east, Rutherford County is dominated by gneiss and schist rocks of the Paleozoic Era. These rocks are likewise penetrated by numerous veins which exhibit small quantities of gold ore, often mixed with copper and iron ores. The State Board of Agriculture (1896:70) observed that the South Mountains in Burke, McDowell, and Rutherford counties were particularly noted for their gold ores mixed with quartz rock.





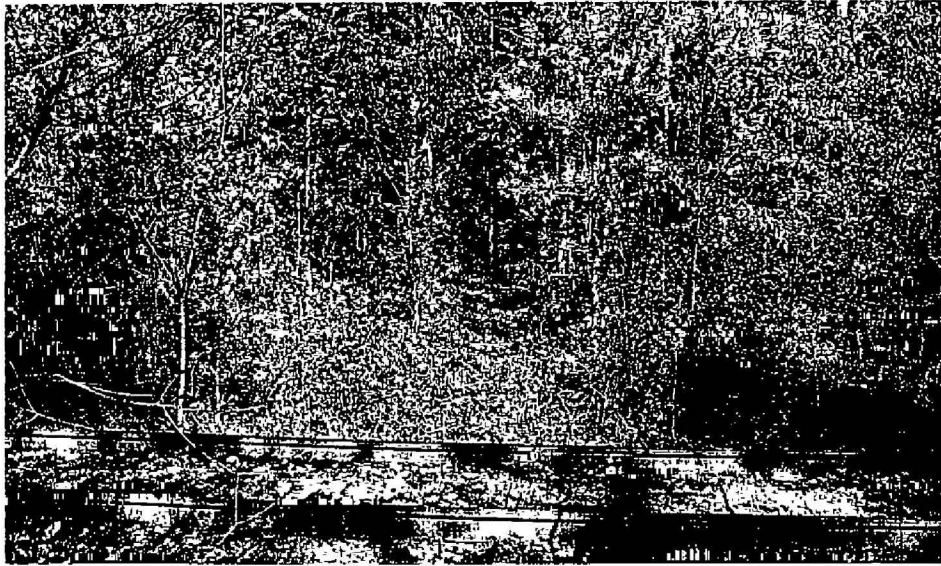


Figure 3. Bechtler site from Gilboa Church Road, looking to the east.



Figure 4. Portion of Jaynestown or Jeanstown Road looking north in the Bechtler tract.

The South Mountain belt proper comprises an area of nearly 300 square km, extending from Morganton to Rutherfordton. The gold bearing quartz veins of this area are true fissure veins and may vary in thickness from a mere line to upwards of a meter, although the vast majority are less than 2 to 8 cm thick. The gold bearing veins seem to be concentrated in five parallel belts or zones. Of greatest interest to this current study is the Idler Mine Belt, which is about 4.8 km north of Rutherfordton, in the area of the Bechtler Mint. The Idler Mine:

is situated five miles north of Rutherfordton. As many as thirteen parallel veins have been explored within a distance of half a mile across the strike. The four larger veins are known as the Monarch, Alta, Carson, and Glendale. The last work was done on the Alta vein some three years ago at a depth of one hundred and five feet. The thickness of this vein is said to average about fifteen inches, and the ore is said to yield in mill tests for \$10.00 to \$30.00 per ton of free gold. The Elwood and Leeds mines are situated in the neighborhood (State Board of Agriculture 1896:85).

Most of the veins in the region are too narrow to be profitably worked, although decomposed rock can be sluiced or processed in a mill with amalgamation (for additional information on these techniques see Trinkley 1986). It seems that historically placer deposits have been the most important sources of gold in the area. These are found associated with gravel beds in the streams and adjoining bottom lands, in gulch and hillside deposits, and even in the very upper zones of decomposed rock still in place.

Piedmont soils are generally over a meter in depth and have red or yellow heavy clay subsoils. Although formed by the decomposition of very old rocks, the soils themselves are relatively young due to recent soil erosion. Differences in the surface soils are the result mainly of the different types of parent rocks. Although the soil survey for

Rutherford County has not been completed, the soils in the vicinity of the Bechtler site belong primarily to either the Cecil or Pacolet series (Lee Mallard, personal communication 1995).

The Cecil soils represent residuum that has weathered mainly from high grade metamorphic rocks such as biotite gneiss and migmatitic gneiss. Commonly found on summits the Ap horizon ranges up to 20 cm and consists of a friable, reddish brown (5YR4/4) sandy clay loam. It typically rests on a Bt horizon of red (2.5YR4/8) clay or clay loam. The Pacolet soils are not immediately distinct to the novice. They also represent residuum, in this case weathered from intrusive and high grade metamorphic rock such as metamorphosed granite, migmatitic gneiss, biotite gneiss, and sillimanite-mica schist. They are also found not just on summits, but also the side slopes, and the Ap horizon consists of up to 13 cm of dark reddish brown (5YR3/4) sandy clay loam. The Pacolet soils typically overlie a Bt horizon of red (2.5YR4/6) clay, clay loam, or sandy clay.

Erosion here, like elsewhere in this portion of the Piedmont, is primarily the result of increasingly erosive land-use activities during the postbellum, peaking by the early twentieth century (see Trimble 1974). Trimble notes that Rutherford County has likely seen the loss of between 18 and 25 cm of soil, primarily the result of poor agricultural techniques. Although agricultural practices are considerably different today, erosion can still be locally severe, especially depending on the activities which take place. For example, wildfires can result in the erosion of up to about 0.11 metric ton per hectare per year. However, mechanical site preparation, typically found in many timber stands, can cause the extraordinary erosion rate of 15.15 metric tons per hectare per year (U.S. Department of Agriculture 1983:25).

### Florestics

Today three centuries of human action have dramatically altered the Piedmont vegetation, creating a patchwork of forest land dominated by pine and cultivated land, including pasture. Early settlers found a continuous oak-hickory forest on the uplands and a mixture of broadleaf species on the floodplains. The clearing, cultivation, and subsequent abandonment of land not only

promoted erosion, but also the sub-climax dominance of pine. Most of Rutherford County is covered in shortleaf pine, although Virginia pine is common on the more northern and mountainous areas of the County. Fertile upland areas may support southern red oak, white oak, and mockernut hickory. The understory may contain dogwood and sourwood. Dry sites with thin, eroded soils may support post oak, scarlet oak, and shagbark hickory. Sycamore, sweet gum, tulip poplar, willow oak, and ash are common on the floodplains. In the more upland, cool areas occasional remnants of mountain flora such as hemlock, white pine, and rhododendron may still be found.

The Bechtler site in the early twentieth century was apparently a pasture (Jim Womack, personal communication 1995), although others suggest that at least portions may have been planted. Later the site was plowed and planted in shortleaf pine, which has been harvested and replanted at least once in its history. The trees on the site today are perhaps 20 years old and there is an understory of tulip poplar, dogwood, ragweed, and poison ivy. In a few areas there are also remnant plantings, likely related to the Bechtlers use of the site. These include two areas where *Yucca filamentosa* is present, one area with a number of privets, *Lygustrum sinense*, and an area of dense periwinkle, *Vinca minor*.



## HISTORICAL SYNOPSIS OF THE BECHTLER MINT SITE

### Introduction

There are a number of secondary accounts of the Bechtler operations, most of which repeat some version of the same story. From the vantage point of numismatists, Walter Breen (1988) offers an exceptional account of the mint and its place in financial and coinage history. Ora Blackmun (1977) places the Bechtlers and their mint within the context of western North Carolina history and the growth of the frontier. There are also short, popular accounts such as one in the August 31, 1963 *The State Down Home* or the North Carolina Museum of History publication by Rodney Barfield and Keith Strawn (1980). Perhaps the most complete account, however, is that by William Bynum, prepared for the Rutherford County Historical Society in 1989. These accounts will only be briefly reviewed in this discussion, which is intended to provide a general context for the site and the range of research questions which it may address.

### History of the Bechtlers

Bynum (1989:1, 8) notes that the Bechtler family, lead by patriarch Christopher Bechtler, Sr. arrived in Rutherford County in 1830. As recent immigrants who were not yet naturalized citizens, they were unable to purchase property outright, so the tract north of Rutherfordton was purchased by a trustee, Martin Kibler, from John Bradley. They received actual title in 1838, reputedly five years after they had become citizens. Breen (1988:624) provides a little additional information, noting that the Bechtlers arrived in New York from Pfortzheim, Germany in 1829 and had moved almost immediately to Philadelphia where they lived for only a short period before migrating to North Carolina.

Little is known about the early history of

the Bechtlers — what was their background in Germany, what was their occupation, why did they leave, what did they do that year in Philadelphia, why did they chose North Carolina, and what was their tie to Martin Kibler? Many of these questions may be unanswerable, but the inquiry may provide a better understanding of the Bechtlers and their lifestyle just outside Rutherfordton.

It seems that the Bechtlers lost little time in setting up a mint. Bynum notes that their first advertisement, in the *North Carolina Spectator and Western Advertiser*, appeared on July 2, 1831. This suggests that the Bechtlers moved to North Carolina specifically to conduct gold work and had the expertise and equipment to quickly begin work. There seems to be little doubt that the Bechtlers were well established almost immediately upon their arrival and Bynum has found evidence that they were selling jewelry and watches on their property by August 1831. The only real question, it seems, is whether the Bechtlers were equally successful (or even interested in) mining and processing operations. Bynum mentions some evidence that they were conducting hard rock mining and ore processing in the first quarter of the 1830s, although there seems to be some question concerning the profitability of this work. During the 1830s the Bechtlers continued to add small tracts to their holding, purchasing 6 ha in 1833, and three tracts totaling 20.7 ha in 1838. In 1837 the English geologist G.W. Featherstonhaugh visited Bechtler's house, mint, and farm. Curiously little information has been passed on from this visit.

The Bechtler property, totaling 99.6 ha, was deeded by Christopher Bechtler, Sr. to his son, Augustus on July 6, 1840. Bynum (1989:9) notes that the deed includes, "all of the Tools and Instruments . . . necessary or useful in carrying [sic] on their trade in all its various branches."

Bynum, probably correctly, interprets this as suggesting that Christopher, then about 58 year old, was retiring and passing on the family business to his son. The 1840 Federal Census reveals that the Bechtler household included one male in his fifties (Christopher, Sr.), two males in their twenties (Augustus, his son, and one other individual), and three slaves (a woman and her two children).

Bynum also notes that with Christopher's retirement in 1840 the detailed accounts of the minting operations also ceased. Yet the mint and associated retail activities apparently continued, at least for a year or so. He noted that William H. Battle road out of Rutherfordton "to see Mr. Bechtler, a famous coiner of gold and first rate gunsmith" in 1841 (Bynum 1989:10).

Christopher, Sr. died in 1843 and although he had already deeded the land and business to his son, Augustus, his will directed Augustus to enlarge "the coining business" (Bynum 1989:10). Augustus, however, would receive little benefit from the business, dying intestate in late 1843 or early 1844. Christopher, Jr., a nephew of Christopher, Sr., was appointed the administrator of the estate. He moved the Bechtlers' businesses to Rutherford and the farm and associated land passed to Charles Bechtler, Augustus' brother. As part of this settlement Augustus' slaves, Patsy and her three children, were sold. The accounts and inventories of sales after Augustus' death (Bynum 1989:58-63) suggests that the vast majority of the Bechtler business was disposed of at this time. For example, there are listed no fewer than 30 weapons, at least 19 gun barrels, a number of "lots" of machinery and tools, and a range of jewelry settings and tools. It appears, at least at first glance, that the only aspects of the Bechtler business which moved to Rutherfordton may have been those associated with the production of coinage.

By the spring of 1846 Charles Bechtler also died and the family property was sold at auction to one of the adjacent property owners, John Geer. While outside the focus of this study, Bynum (1989:11-14) does indicate that additional efforts at mining continued to take place on the tract. Likewise outside our concern is the jewelry business of Christopher Bechtler, Jr. in

Rutherfordton, which continued at least to the late 1850s. Christopher's son, Augustus, began a jewelry business in Morganton and his daughter Anna operated a similar business in Atlanta into the 1890s (Bynum 1989:42).

### Site Activities

Missing from this discussion, of course, is a very clear understanding of the different activities which took place on the Bechtler property between about 1830 and 1844. There is every indication that the Bechtlers minted coins, created jewelry, made guns, and perhaps even tinkered with other inventions and machinery. There is also convincing evidence that in addition to assaying and coining other people's gold, they also sought gold deposits of their own through both hard rock and placer mining. In addition to these activities, which seem to be more than enough to occupy their time, their property is called a "farm," suggesting that they cultivated the land. Since Charles, Augustus' brother, is not known to have been involved in any of the trades, it seems likely that he may have been responsible for the farm and its cultivation. This sort of division of labor among family members was not uncommon and allowed large, extended families to undertake a variety of different obligations.

### The House

Also missing from these discussions is information on the layout or organization of the Bechtler property and buildings. Bynum also notes that "there are no known complete descriptions of the Bechtler house and mint by their contemporaries" (Bynum 1989:20). In fact, the only account is that from 1837 by Featherstonhaugh, who remarked only that Christopher Bechtler, Sr. lived in "a cottage in the woods," and that all of his business was conducted "at his house."

Unfortunately, Bynum then goes on to recount oral history and legend, much (most?) of which is far removed from the actual events and cannot be independently verified. While sympathetic to his efforts to squeeze as much as possible from the available sources, it seems that many of the observations offered nearly a hundred years after the operation of the mint are unreliable

and should be discounted. Without going into detail, Bynum reports accounts that the building was "substantial," that it was of frame or log construction, and that it may have rested on a brick or stone foundation. When these claims are carefully examined it can be seen at all are possible, but there is no evidence which makes any of them especially probable. Our use and understanding of space today is considerably different than 150 years ago, so it seems inappropriate to base reconstructions of house size on current ideas of spatial arrangement. There seems to be a growing body of evidence that there was considerable diversity in structure sizes, with some plantation houses, for example, being very small. It is likewise possible to see either log or frame construction, especially on the frontier. In fact, in the late eighteenth century the Moravian community at Bethabara contained an equal number of both types co-existing with no apparent social or functional division (Lane 1985:67). Both brick and stone foundations similarly co-existed, with occurrence based primarily on availability.

Bynum also mentions that at least one informant, living long after the house disappeared, reported it to have four room with a central hallway and a rear addition (Bynum 1989:23). For reasons which are not altogether clear, the conventional wisdom is that the house was a single story. Certainly Featherstonhaugh's mention of a "cottage" suggests a relatively unpretentious structure which probably was not at the height of architectural fashion. Lane (1985) illustrates a number of early nineteenth century structures and variations on several distinct floor plans. Oak Lawn, built in the second decade of the nineteenth century in Mecklenburg County, tends to represent many of the rural "country" homes of Piedmont farmers. Most were two and a half-stories, gable roofed, frame structures on low fieldstone foundations, with exterior end chimneys and rear kitchen wings. This arrangement, in many respects, would satisfy much of the oral history. Yet we can't be sure whether this is because it is a valid reconstruction or because the oral history is built on vague memories synthesized to resemble what is still common in this area of North Carolina.

Finally, Bynum also recounts the local legends that the rear wing was built over the mine shaft entrance, which competes for acceptance with

another legend, that under the rear wing the Bechtlers' laid down white sand which could be periodically washed for the recovery of gold dust. Both of these, however often repeated, seem to have little factual basis.

Issues such as foundation remains construction techniques, and even floor plan, however, can likely be better resolved through archaeological studies than through the examination of either local antecedents or the exploration of oral histories.

### Outbuildings and Landscaping

Just as important as the main house, of course, are the range of other structures which *might* be found near such a farm house. Bynum mentions, based either on similar sites or oral history accounts, the presence of an icehouse, smokehouse, corncrib, root cellar, and stable. Some brief mention is also made of some nearby landscaping, such as the presence of peach trees and a vineyard (Bynum 1989:25).

There is some question whether an icehouse would actually be found in this part of North Carolina (Jim Womack, personal communication 1995), although Vlach (1993:80-81) reports their occurrence in virtually all sections of the South. An ice house for the Bodie plantation near Franklinton was provided by a former slave, Mary Anderson:

a pond was located on the place and in winter ice was gathered there for summer use and stored in an icehouse which was built in the grove where the other buildings were. A large hole about ten feet deep was dug in the ground; the ice was put in that hole and covered. A large frame building was built over it. At the top of the earth there was an entrance door and steps leading down to the bottom of the hole. Other things besides ice were stored there. There was a still on the plantation and barrels of brandy were stored in the icehouse, also pickles, preserves,

and cider (quoted in Vlach 1993:81).

All of the descriptions of icehouses focus on one similarity — the greater part of the icehouse was consistently located underground. Measuring anywhere from 12 to 34 feet in diameter, the icehouses might be topped by domes of earth or brick buildings, or frame structures, but as Vlach notes, "although these icehouses differed on the surface, they were all still the same type of structure" (Vlach 1993:81).

There is no disagreement that smokehouses were very common. Vlach notes that the smokehouse was more than "just a building where meat was preserved." It was, in his words, "an index of regional diet and thus was perceived as an important symbol of southern identity by local people and outsiders alike" (Vlach 1993:63). He remarks that it was first a "machine" for preserving meat — hog meat — which was first treated by "dry salting" and then hung to dry over a smoldering fire. Between the drying effect of the heat and the sanitizing effect of the smoke, the meat would usually keep fairly well. But the smokehouse was also a symbol of the farm's self sufficiency. On plantations it took on further meaning, being linked to the planter's mastery over his slaves (Vlach 1993:64).

We might expect in this area a smokehouse with a rectangular floor plan with an entrance in one of its narrower walls. Thought to derive from a Pennsylvania prototype, Vlach notes that this form is typical of the upland South and often included a roof projecting several feet over the door. This overhanging gable provided a work area — somewhere for the slaughtered hogs to be hung while being butchered (Vlach 1993:66). More useful from an archaeological vantage is the commentary by one planter who wrote in 1851:

A filthy smokehouse is a disgusting subject to write about, but as they are so numerous, I hope to be pardoned. It is enough to restrain the most inordinate appetite to be shown into the smokehouse and be regaled with the scent from its ground floor,

spread with fragments of meat and bones and its walls decorated with fat cans and soap gourds (quoted in Vlach 1993:67).

Built simply and containing relatively few artifacts, the smokehouse likely will be often overlooked in archaeological studies.

Corncribs also will be hard to identify archaeologically. The one illustrated by Vlach (1993:203) from Hampton Plantation in Baltimore County, Maryland is little more than a specially designed barn. Of frame construction built on a stone foundation, this gable roofed structure might appear as a barn or possibly even a stable (although it has no windows and only one door). Similar cribs are illustrated by Periam (1984:423-424 [1884]).

It seems at first glance that it is unlikely that *any* original plantings exist in the site area, especially considering the land use history recounted by Bynum (1989:14). Between late nineteenth century mining, vandals and treasure seekers, and timbering, there have been a number of potential impacts to the site. Yet, a more careful consideration may actually suggest otherwise. Bynum is rather unspecific in his accounts of logging (the most destructive activity, at least as far as landscape plants), probably because the timber company itself maintained relatively few records. Regardless, there are hardy plants which may survive the rigors of discing, especially if the timber company avoided areas, such as that around the main house or mine shaft. They may have found these areas either too dangerous for their crews, or alternatively, requiring too much effort to plant given the limited return. This safety and commercial reluctance to deal with the shaft and house area may even have played a role in the timber company reserving 0.4 ha of the site (later increased to 1.2 ha) for preservation efforts (Bynum 1989:14).

#### Antebellum Piedmont Farm Archaeology

Very little historical archaeology research has been done on nineteenth century farmsteads in the upstate of either North or South Carolina. However, in neighboring South Carolina, Benjamin Resnick (1988) has recorded standing architecture



and conducted test excavations at the Williams Place house site in Spartanburg County (38SP109). The structures that were extant during his study were believed to have been erected sometime between 1839 and 1850 by Robert R. Williams, although the site may have been occupied by his father as early as 1805 (Resnick 1988:29-31). The arrangement of structures concentrates at two centers consisting of the main house and its service structures and the dependency structures. Within the main house complex was the farmhouse, kitchen, smokehouse, and commissary. Dependencies included a still house/barn, frame barn, log barn, and corn crib. There were two isolated structures consisting of a smaller house site about 61 m from the main house complex (believed to have belonged to a freedman) and a blacksmith shop located about 53 m from the main house complex. Other features included a road network and a dammed pond constructed in 1945. Without standing evidence, it is likely that many of these structures would have been overlooked in an archaeological investigation; not because they weren't interesting, but because they leave little archaeological evidence. Clearly, there were many activities that took place at farm sites including those specialized activities that may be archaeologically detectable such as sewing or pottery manufacture.

Although constructed during the eighteenth century, the primary period of occupation at Rosemont Plantation in Laurens County, South Carolina was the nineteenth century (Trinkley et al. 1992). Work at plantation sites provides data on a segment of society that was in the higher economic stratum and can provide important information about the range of lifestyles present in the Piedmont. Historical research indicated that a small log house was initially constructed, later replaced by a larger home build adjacent to the Saluda River. It was the later house which was the focus of archaeological testing. Other structures identified either historically or archaeologically included a school/library, flanker, kitchen, possible slave houses, and a possible smokehouse. In addition to work at structures, the remnant ornamental garden was also mapped. The archaeological data suggested that the occupants of Rosemont were indeed wealthy through the presence of expensive ceramics and personal items as well as the presence of an elaborate garden.

There has been no published study on slave archaeology of the South or North Carolina upstate. Work by Orser (1988) at Millwood Plantation in Abbeville County, South Carolina focused primarily on the tenant population. However, Orser notes that the slave force there between 1830 and 1860 grew from 55 to 195 individuals and this growth was heavily impacted by the lucrative cotton staple. The owner, James E. Calhoun, had three plantations by the 1830s and was a very wealthy individual (Orser 1988). Such large plantations were, however, relatively uncommon in Rutherford County, North Carolina, where small farms and smaller slave populations were by far more common.

Research questions related to the farm or plantation in upstate North Carolina might reasonably include how the layout changed through time, the range of activities which might be found at such sites, how the county- or region-wide settlement pattern changed during the antebellum, the possibility that these sites include evidence of Cherokee interaction, how slave and owner sites in the upcountry compare to those in the coastal plain, under what circumstances did owner and slave live together, the further exploration of the lifestyle of the up country slave, evidence of increased (or decreased) freedom among the small slave population typical of up country farms and plantations, and comparison of German and Scotch-Irish farmsteads for ethnic differences.

This last issue, of course, has been briefly explored by Stanley South (1977) at for North Carolina's colonial period. South, for example, comments on the "high degree of self-sufficiency" in German-American settlements during colonial times, compared to the British-American system which discouraged self-sufficiency during this same period (South 1977:186-187). He also points out the "dramatically different artifact relationships and refuse disposal behavior" at German-American towns such as Bethabara, when compared to British-American settlements such as Brunswick (South 1977:232). While the British-American disposal pattern tended to focus on disposal nearby, essentially out the doors and windows, German-Americans according to South were "inordinately neat" (South 1977:77; see also Carrillo et al. 1975).

## ARCHAEOLOGICAL INVESTIGATIONS

### Strategy and Methods

The first activity on-site was to identify the 1.2 ha area owned by Rutherford County. This was relatively easy since each corner is marked by a pipe and boundary trees are clearly blazed. The tract, as shown on the available mapping, is a rectangle measuring about 91.7 m on its northeast and southeast sides and between 114.2 and 119.2 m on its northwest and southeast sides. To the southwest it was bounded by the county owned railroad. We initially intended to use the survey corners for our site datums, but found that the planted pines were at a slight angle to the property itself, obscuring a clear backsight. Consequently, we established a new datum which consisted of a 1.6 cm rebar topped with a 3.8 cm aluminum cap engraved with the site number, 31RF157, and the assumed elevation, 100 m. This datum is situated 1.64 m west of the property's southwestern pipe. The grid we established used this new datum and the property's northwest pipe corner as a backsight. This grid is oriented N26°E and the top of the aluminum cap, as previously mentioned, was assigned an assumed elevation (AE) of 100.0 meters in order to maintain vertical control at the site (Figure 5).

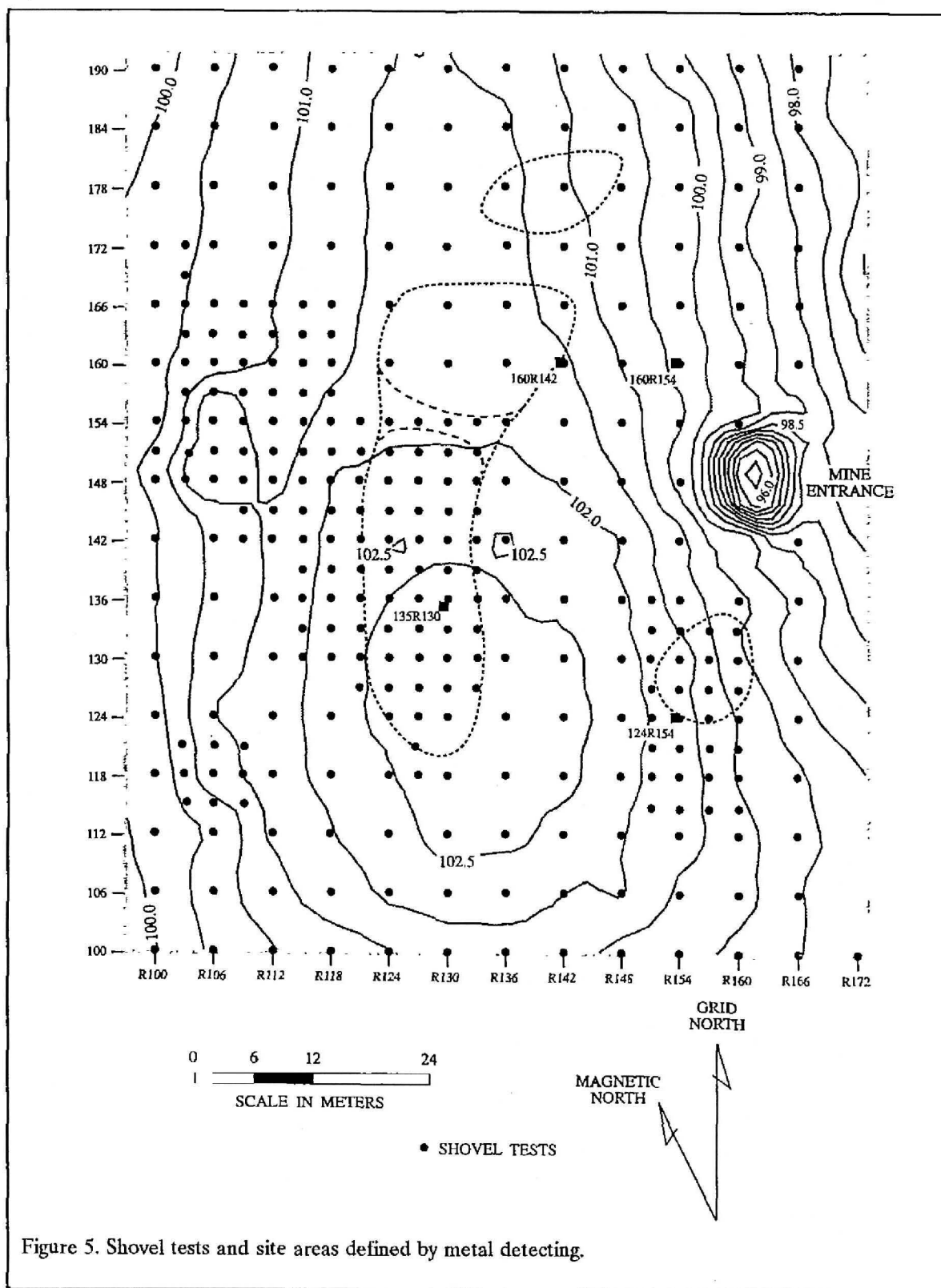
A modified Chicago 6 m grid was established, with each point designated from a 0R0 point off site. Point 150R100 would be located 150 m north of this 0R0 point and right (or east) 100 m of the 0R0 point. The aluminum cap was located at 100R100 and the grid was extended 90 m to the north (to 190) and 66 m to the east (to R166), covering an area of about 0.6 ha. All shovel tests and other work conducted at the site was tied into this grid system and all elevations are relative to this AE point. Excavation units are designated by their southeast corners.

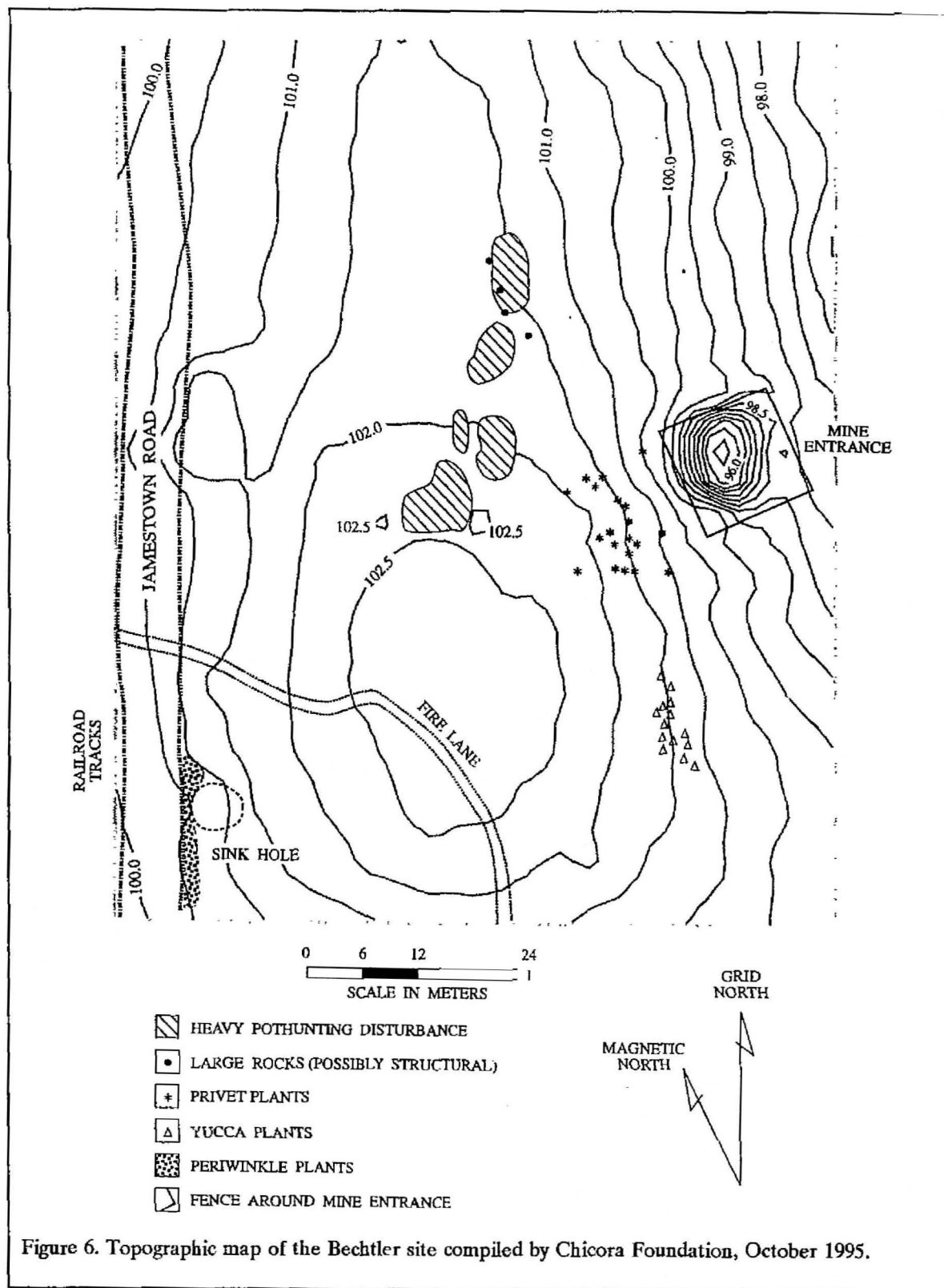
This grid also formed the basis of our site mapping. Elevations were taken at each of the 192 points, with additional elevations taken as

necessary to better define topographic features (especially the mine shaft entrance). A variety of cultural features were added to the base map, including the fence surrounding the mine shaft, the fire lane recently plowed through the site, and the remnants of Jaynestown or Jeanstown Road. Also added were remnant plantings and areas of extensive pot hunting or site looting (Figure 6).

The grid work itself was rather labor intensive, largely the result of the variable topography and, especially, the dense planted pines. After the grid was established, however, the next task was to begin the excavation of shovel tests. All tests were 30 cm square and were excavated to subsoil, consistently found as a stiff red or reddish brown clay or clay loam. The fill from these tests was screened through 6.25 mm mesh and all artifacts were retained and bagged by the grid coordinates. Brick was noted, but discarded in the field. Profile notes were maintained for each shovel test using a standardized form.

Coupled with the shovel testing at 6 m a metal detector survey was also conducted of the entire gridded site, using a Tesoro Bandito II™ metal detector with an 20.5 cm electromagnetic type concentric coil operating at 10KHz. This instrument has the capability to operate in either an all metals mode or discriminate mode (which eliminates ferrous metal response). The all metal mode is the industry standard VFL type which does not require motion of the search coil for proper operation. The discrimination mode is based on motion of the search coil, but allows control over the detector's response to ferrous metals. Based on the history of the site we suspected that relatively few non-ferrous remains would be present, with most having been long ago removed by site looters. In addition, since the goal of this search was to help us identify structural areas based on nail concentrations (especially hoping to identify structures which might otherwise







have very low artifact densities, such as smokehouses or corn cribs), we chose to search in an all metal mode. Individual "hits" were not flagged, but initial dense readings were flagged and these areas formed the basis of essentially three different site areas (Figure 5). One of these areas, a long linear swath in the central portion of the site, contained two concentrations, one at either end. The entire area measures about 48 m by 12 m. Another concentration, measuring about 10 meters in diameter, was found to the west on the side slope. The third was found to the north and measured about 12 by 6 m.

This latter metal detected area, at the northern edge of the site, was found in an area which had produced virtually no artifacts. Consequently, a more detailed metal detector survey was conducted, with individual "hits" flagged for excavation as shovel tests. These remains were found to cluster primarily around the north and south edges of a vaguely square sunken area measuring about 3.5 m on a side (Figure 7).

An initial field assessment of the 6 meter shovel tests revealed four areas which might be better defined through closer interval (i.e., 3 m) shovel testing. One of these (at the southwest edge of the site) represented an isolated artifact occurrence and it was hoped that additional testing might refine our understanding of this discovery. Close interval testing in the southeast quadrant was conducted in the hope of better refining the boundaries of rather ephemeral smear of artifacts coinciding with one of the metal detector areas. Another area of close interval testing was situated at the northwestern edge of the site to further explore what appeared to be relatively isolated positive shovel tests. These tests, however, merged with the fourth area, in the central portion of the site. These additional tests were placed to help refine the boundaries of this area and to also determine if any clear differences could be identified in the associated metal detector area. In all 324 shovel tests were excavated, of which 67 (or 20.7%) were positive.

One of the final tasks at the site was the excavation of four 1 m units designed to provide additional information on site integrity, the presence of potential features, and the different artifact concentrations identified through the metal

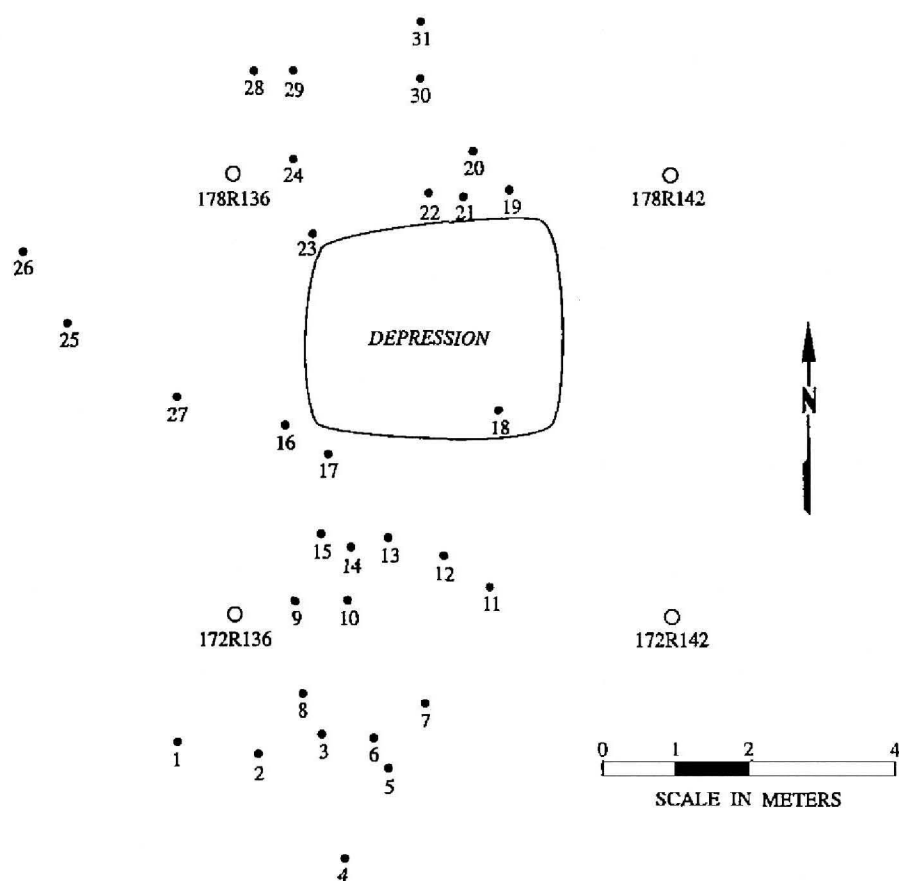
detecting and shovel testing. The southernmost unit, 124R154, was excavated on the edge of the southeastern area identified by the metal detector survey which also evidenced relatively low artifact density. Unit 135R130 was placed at the southern end of the large smear of artifacts identified through both metal detecting and shovel testing in the central portion of the site. It was located in an area of seemingly dense artifacts which also contained some brick fragments. Unit 160R142 was placed at the northeast edge of the same area examined by 135R130. The last unit, 160R154, was placed down slope from 160R142, in an area of relatively dense remains.

Each unit was excavated by natural zones, although in each case only one zone was present — a reddish-brown sandy clay Ap horizon which rested on a red clay subsoil (Figure 8). Like the shovel tests, all fill was screened through 6.25 mm mesh. The units were troweled at the base of the excavations, photographed using black and white print film and color transparency film and then drawn. At the conclusion of the work plastic was laid the bottom of the units and they were backfilled.

#### Archaeological Remains

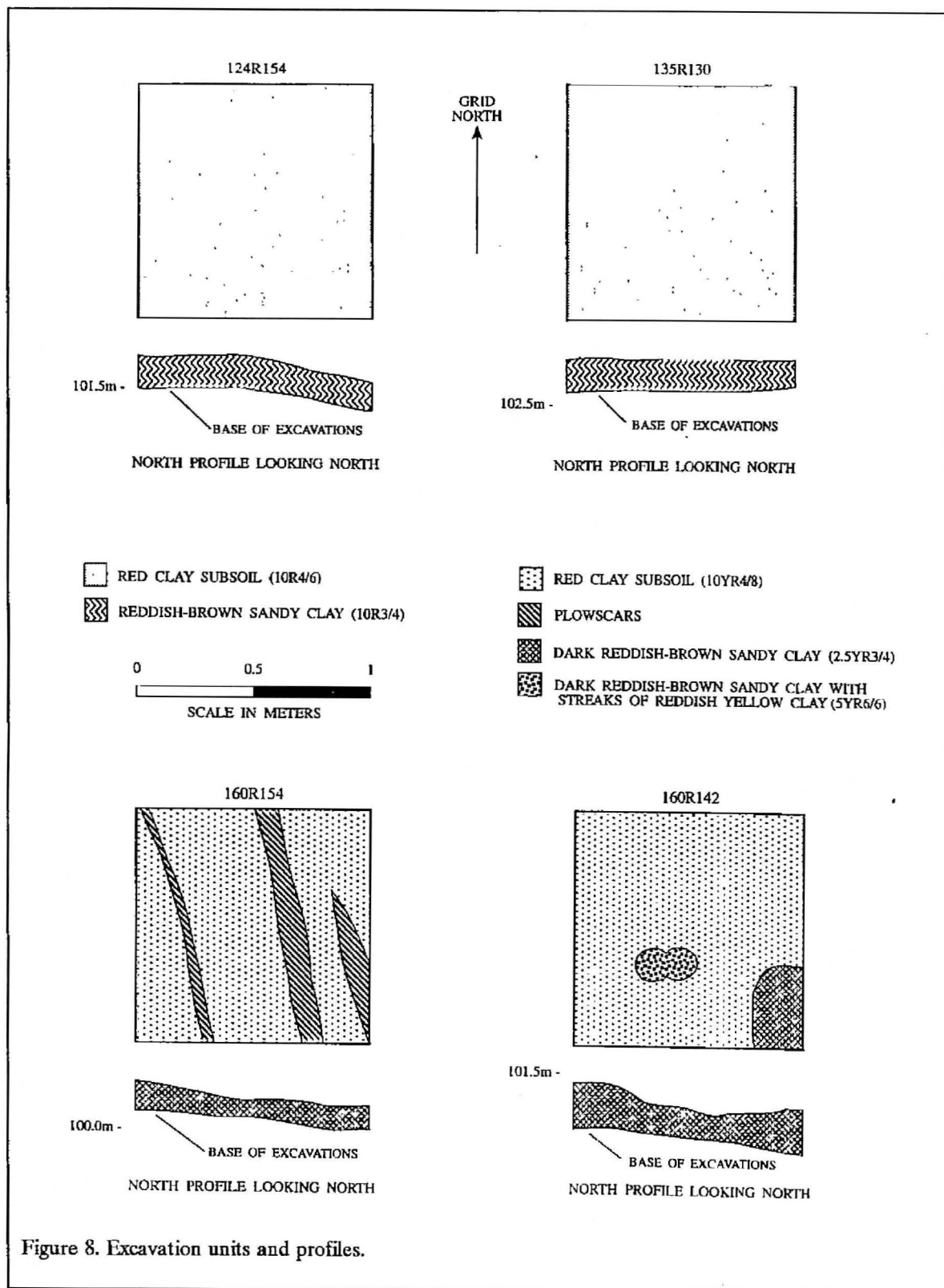
The shovel testing data were used for two purposes — first, to produce computer generated artifact density maps and, second, to better understand erosion and other site disturbances. In both areas the shovel tests were very effective.

Figure 9 illustrates the density of all artifacts from shovel test contexts and the map immediately illustrates several important aspects concerning the site. Perhaps the most obvious feature is that artifact density, throughout almost portions of the site, is very low. In fact, the computer algorithms were able to find only two areas of any significant density — one in the northeast quadrant of the site, covering an area about 24 m east-west by 12 m north-south and a second area, in the south central portion of the site, which is centered on a single test (although it extends to the immediately surrounding tests as well). Elsewhere there are small "islands" of artifacts surrounded by no remains. Further, artifact density declines dramatically to the



ST#	ARTIFACTS		
1	1 wire fragment	16	1 machine cut nail
2	1 plow fragment	17	2 whiteware, undecorated
3	1 machine cut nail		1 whiteware, blue edged
4	1 machine cut nail fragment		1 machine cut nail fragment
5	1 machine cut nail fragment	18	1 nut fragment
6	1 machine cut nail	19	1 machine cut nail
7	1 Chinese porcelain, hand painted	20	1 melted iron fragment
	1 burnt refined earthenware	21	1 UID iron
	1 machine cut nail	22	1 machine cut nail fragment
8	1 iron band	23	1 tin can lid
9	1 machine cut nail fragment	24	1 machine cut nail
10	1 stoneware crucible	25	2 machine cut nail fragment
11	1 aqua glass	26	1 machine cut nail
	1 machine cut nail fragment		2 machine cut nail fragment
12	1 machine cut nail fragment	27	1 UID iron
13	1 machine cut nail fragment	28	1 machine cut nail
14	1 whiteware, undecorated	29	1 machine cut nail fragment
	1 machine cut nail	30	1 machine cut nail
15	1 machine cut nail	31	1 machine cut nail fragment

Figure 7. Metal detector results around the northern concentration.



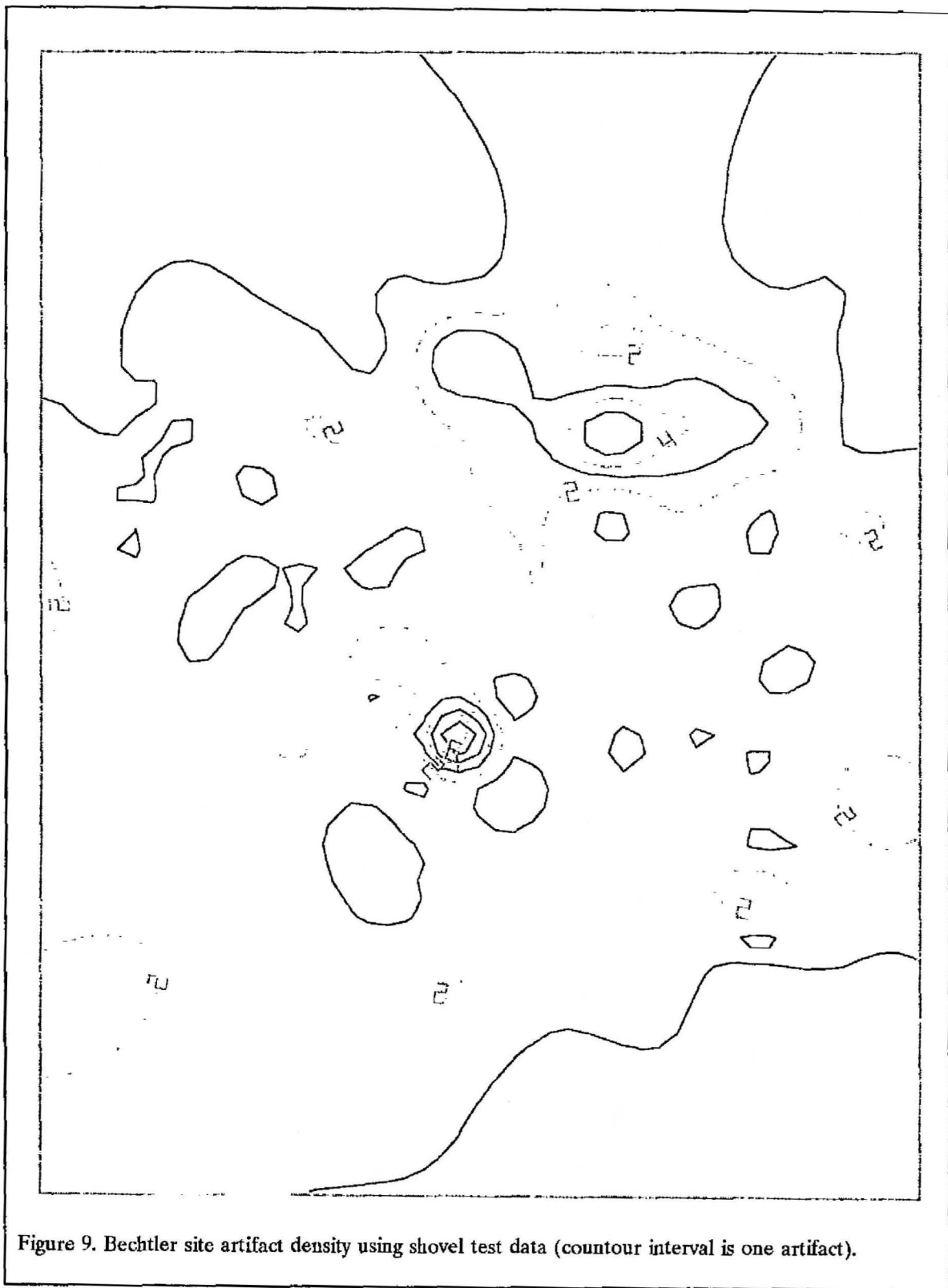


Figure 9. Bechtler site artifact density using shovel test data (countour interval is one artifact).

northeast, southeast and northwest.

When only architecture artifacts are examined (Figure 10, primarily nails and window glass) an even simpler distribution becomes apparent. Figure 8 reveals that the south central concentration is increased, taking in additional shovel tests when only architectural items are considered. Otherwise there are, frankly, no clear indications of structural remains based on the shovel test data.

Figure 11 examines the kitchen artifacts only — items such as ceramics and container glass. Some hint of the concentration in the northeast quad is found and the south central concentration is still present, although confined to one test. Elsewhere there is still a rather diffuse smear of artifacts, largely found as isolated concentrations.

These data are not especially reassuring, although we are inclined to attribute their lack of insight to the very low number of artifacts. In spite of very close interval testing, only 109 artifacts were identified in the shovel testing. While this *may* be a reflection of site integrity, we are more inclined to believe that it is another example, as South put it, of the German-Americans being "inordinately neat." At least the kitchen artifact distribution strongly suggests that refuse was disposed somewhere off-site and that the remains found in the shovel tests are those which were too small to be collected and disposed of elsewhere.

The south central concentration of shovel test artifacts appears to generally correlate with the southern metal detector concentration, suggesting some type of structure on the very crest of the ridge at the southern edge of the site. The concentration of artifacts in the northeast quadrant of the site, however, does not correlate particularly well with any of the other data obtained from the investigations. It appears to be situated between the northern end of the metal detector concentration and the mine shaft entrance, on the side slope of the site. Curiously, all of the heavy pot hunting or looting damage seems to correlate with the northern half of the metal detector swept.

The shovel tests found that A horizon soils are found in most areas of the site, although

erosion (evidenced by a lack of A horizon soils) is present in about 24% of the shovel tests, primarily in the northeast corner and along the southern quarter of the site. These areas are among the most steeply sloping portions of the site and it appears that soil was lost through sheet erosion. Elsewhere, between 3 and 25 cm of A horizon soil was encountered, with the mean being 14 cm.

The metal detector survey concentration at the northern edge of the site, as previously discussed, was carefully examined. Individual hits were flagged, mapped, and then excavated. These produced a rather peculiar distribution primarily on the north and south sides of a shallow, 3.5 meter square depression (Figure 7). Upon examination the 31 "hits" produced 41 artifacts, 25 (60%) of which were architectural and only 8 (19.5%) of which were kitchen related. The remainder were all activities related (ranging from a plow fragment to strap metal to two crucible fragments).

The four 1 m units produced a relatively modest assemblage of only 179 additional artifacts. Units 124R154 and 135R130 both revealed a reddish-brown sandy clay A horizon about 30 cm in depth overlying a firm red clay subsoil. Neither unit contained any evidence of features or, for that matter, many artifacts. Unit 160R142 produced the largest collection of materials (42.5% of the total unit assemblage) of 76 specimens. This unit also evidenced about 40 cm of dark reddish-brown sandy clay A horizon soil over a red clay subsoil. In the subsoil was evidence of two possible features (Figure 8). In the center of the unit were what appeared to be two post holes with a dark reddish-brown sandy clay fill streaked with reddish yellow clay. In the southeastern corner was the northwest quarter of what appeared to be a small pit with a dark reddish brown clay fill containing specks of charcoal. Neither feature was excavated. Unit 160R154 was the only one to produce clear evidence of plowing. At the base of about 25 cm of dark reddish-brown sandy clay there were a series of three plowscars, each tending north-northwest by south-southeast.

#### Remnant Landscape

Relatively little attention in the Carolinas has been directed toward the larger view of the

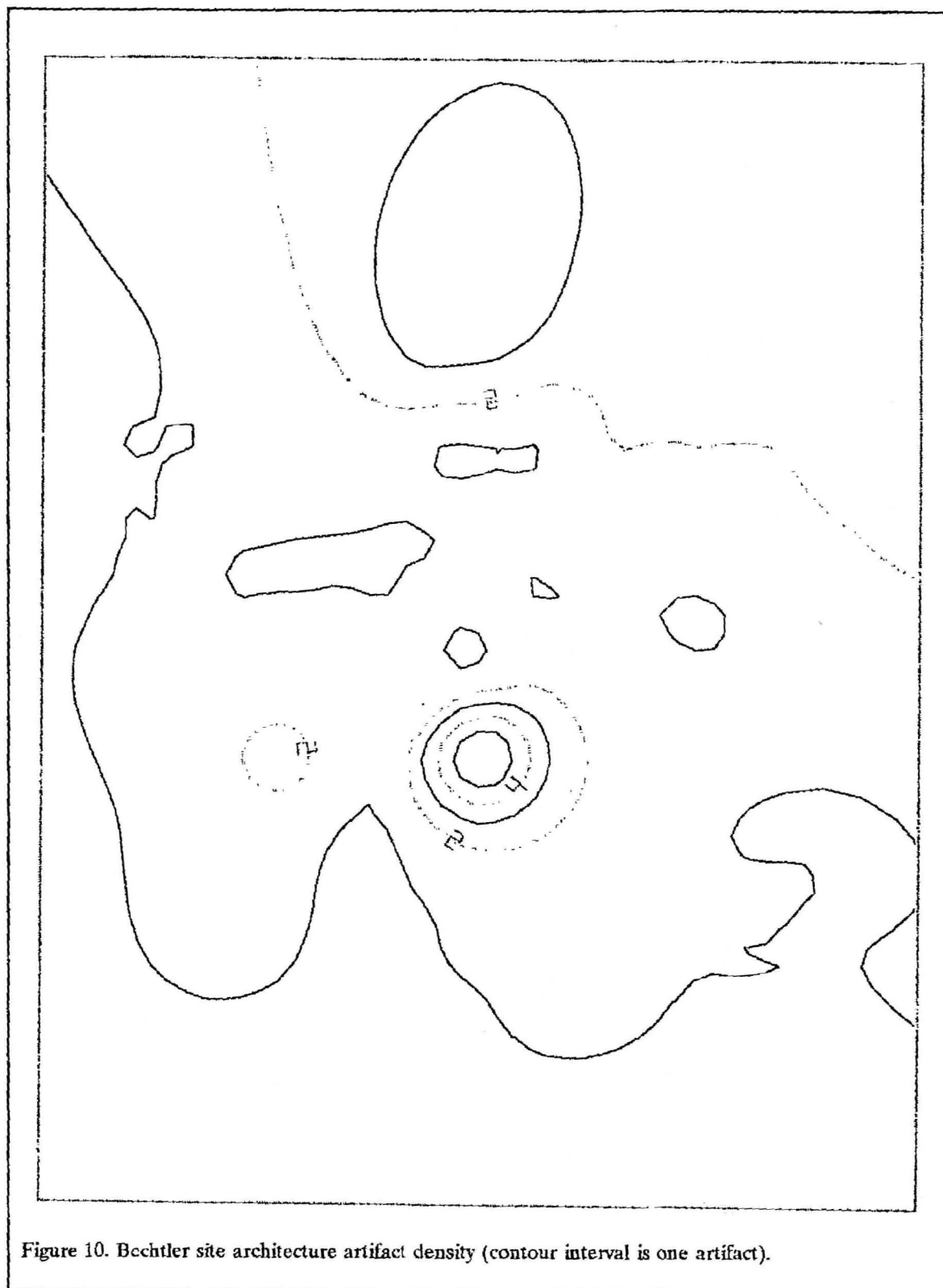




Figure 11. Bechtler site kitchen artifact density (contour interval is one artifact).

plantation or farm landscape. Certainly part of the problem is that "landscape" can mean many things to different people. Typically, however, it includes both the geophysical setting of the plantation or farm and also its built environment. Winberry (1993) provides an thorough discussion of the interplay between geographical definitions of landscape and those typically used in archaeology. He notes that although geographers have used different approaches in their study of landscapes, they generally have used Carl Sauer's classic definition: "those works of man that are inscribed into the earth's surface and give to it characteristic expression" (Sauer 1931:622). Martha Zierden notes:

Archaeologists usually focus incrementally on the excavation unit, the house, or the community; landscape requires consideration of the spaces between these units, such as outbuildings, fences, gardens, pastures, streets, public places, stretches of woods, and water. While these features enjoy equal weight in landscape studies, they are often minimally reflected archaeologically (Zierden 1993:1-2).

Joe Joseph observes that plantation sites, "are marked by an intricate web laid out across the terrain, by the grid of rice ponds and dikes, the broad oak avenues, the classical symmetry of homes and grounds, and by the quiet and 'orderly' presence of slave streets tucked slightly away from view" (Joseph 1993:132). While Piedmont farms may be less impressive, they are nonetheless equally worthy of landscape studies. They, too, represent an "intricate web" and in many respects hold more mysteries than the low country plantations. They may also be just as complex and just as likely to be synthesized into absurd simplicity.

At first glance efforts to understand the landscape of the Bechtler site might be dismissed with the excuse that the topography and site have been "too effected" by modern "disturbances." Yet the Jaynestown or Jeanstown Road is still plainly visible. The soils suggest that erosion is limited to

the steep side slopes and that elsewhere the topography is relatively stable. The only real impact is that the site has been planted in pines. And in spite of this at least three domestic plants, likely associated with the Bechtler's occupation, are still to be found on the site.

Two areas of *Yucca filamentosa* (also known as Adam's needle) are found, although one area consists of only two plants. This plant is a basal evergreen with swordlike leaves, above which may be found towering spikes of long-lasting, and often fragrant, creamy white close-set flowers in the midsummer. The plant is propagated by separate rooted offshoots from the base of the plant, typically in the spring. It has the potential for spreading from its original location and, especially, surviving discing. It prefers full sun, although its current location demonstrates that the plant can survive in partial shade. The relatively small plants and lack of flowering are probably related to the limited sunlight and crowding. Regardless, the plant easily tolerates drought (Calkins 1978:186, 263; Hay and Synge 1975:583).

One relatively dense area of *Lygustrum sinense* is found at the site, immediately west of the mine shaft entrance. A privet, this species has very showy midsummer flowers and is characterized as exhibiting a very graceful habit of growth. The plant itself is also strongly scented. Under good conditions it can grow to a height of 3.7 m and a spread of up to 2.7 m. The plant is very hardy, tolerating a variety of pollutants, high winds, and frequent shearing. It is often used as an inexpensive hedge, or as borders. The plant propagates through seeds, or more commonly as root shoots (Calkins 1978:170-171). The privet first saw use in English gardens during the early seventeenth century, when it was first trimmed into a variety of (typically) very unnatural shapes. By the Victorian period the privet, as a shrub, had been transformed into a labor-saving device (Ordish 1985:91, 159).

Finally, along the east bank of the Jaynestown or Jeanstown Road remnant there is a dense area of Periwinkle (*Vinca minor*). A groundcover, periwinkle has shiny ovate leaves and produces (when well tended) a midspring lilac-blue blossom. It will rapidly spread and thrives in sun or



shade. Root divisions may be made in spring or fall (Calkins 1978:43; Hay and Synge 1975:579). The plant has a very long history in England, being an improved native plant (Ordish 1985:103; see also Favretti and Favretti 1977). Although it has survived next to the old road, its age and lack of care has likely resulted in the near absence of flowers.

While it is possible to generally envision the Bechtler farm house, set on the hill, surrounding by privets and yucca, with a drive or entryway marked by periwinkle, it is no longer possible to determine *exactly* where these plants were located. Certainly some areas have died out and others have been shifted by plowing or simply by spread of the propagating roots. These three remnant plants provide us with some glimpse of how the Bechtlers attempted to make their farm more of a home. All of the surviving plants are known for their blooms. All are very easy to care for and would have required minimal attention — most likely the key to their survival for the past 150 years. Ordish, for example, notes that privets survive 30 or more years with no attention very well although eventually, as in the case of the Bechtlers' garden they would become "dominated by the forest trees climbing above them, reducing them to weaklings just alive in the shade" (Ordish 1985:167).

### Artifacts

This section is intended to provide an overview of the material culture present at the Bechtler site. Relatively few artifacts were recovered from these investigations — likely evidence of the ethnic differences in refuse disposal behavior between the English and the Germans. It seems probable that the Bechtlers disposed of their household trash at some location distant from the actual site, perhaps in an erosional ravine. In addition, the sparsity of remains may also be an indicator of a different world view or orientation, whereby the Bechtlers did not view possession of goods as necessary for their self validation.

### Laboratory Processing, Conservation, and Analysis

The cleaning of artifacts was conducted in Columbia, after the conclusion of the excavations. Cataloging of the specimens was conducted immediately after the field work, using the system adopted by the North Carolina Division of Archives and History, Department of Cultural Resources, Archaeology Branch. The analysis of the specimens was conducted during the cataloging process. Conservation treatments have been and are being conducted by Chicora personnel at the Columbia laboratory.

Brass items, if they exhibited active bronze disease, were subjected to electrolytic reduction in a sodium carbonate solution with up to 4.5 volts for periods of up to 72 hours. Hand cleaning with soft brass brushes or fine-grade bronze wool followed the electrolysis. Afterwards, the surface chlorides were removed with deionized water baths (until a chloride level of no greater than 1 ppm or 18  $\mu$ mhos/cm was achieved using a conductivity meter) and the items were dried in an acetone bath. The conserved cuprous items were coated with a 20% solution (w/v) of acryloid B-72 in toluene.

Ferrous objects were treated in one of two ways. After the mechanical removal of gross encrustation, the artifacts were tested for sound metal by the use of a magnet. Items lacking sound metal were subjected to multiple baths of deionized water to remove chlorides. The baths were continued until a conductivity meter indicated a level of chlorides no greater than 1.0 ppm (18  $\mu$ mhos/cm). The specimens were dewatered in acetone baths and given an application of 10% (w/v) acryloid B-72 in toluene, not only to seal out moisture, but also to provide some additional strength. Items which contained sound metal were subjected to electrolytic reduction in a bath of sodium carbonate solution in currents no greater than 5 volts for a period of 5 to 20 days. When all visible corrosion was removed, the artifacts were wire brushed and placed in a series of deionized water soaks, identical to those described above, for the removal of soluble chlorides. When the artifacts tested free of chlorides (at a level less than 0.1 ppm, or 2  $\mu$ mhos/cm), they were air dried and a series of phosphoric (10% v/v) and tannic (20% w/v) acid solutions were applied. The artifacts were air dried for 24 hours, dewatered in acetone baths, and coated with a 10% solution

(w/v) of acryloid B-72 in toluene.

As previously discussed, the materials are being curated by the Rutherford County Historical Society, with the permission of the North Carolina Division of Archives and History, Department of Cultural Resources, Archaeology Branch. The collection has been cataloged using this institution's accessioning practices. Specimens were packed in plastic bags and boxed. Field notes were prepared on pH neutral, alkaline buffered paper and photographic material were processed to archival standards. All original field notes are curated with the collections, while duplicate field notes have been curated with the Western Field Office of the Archaeology Branch.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. The temporal, cultural, and typological classifications of the historic remains follow such authors as Cushion (1976), Godden (1964, 1985), Miller (1980, 1991a, 1991b), Noël Hume (1970), Norman-Wilcox (1965), Peirce (1988), Price (1970), South (1977), and Walton (1976). Glass artifacts were identified using sources such as Jones (1986), Jones and Sullivan (1985), McKearin and McKearin (1972), McNally (1982), Vose (1975), and Warren (1970).

The analysis system used South's (1977) functional groups as an effort to subdivide historic assemblages into groups which could reflect behavioral categories. Initially developed for eighteenth-century British colonial assemblages, this approach may be inappropriate for both a later, and possibly German-American collection. Although criticized for problems in sample comparability (see, for example, Joseph 1989), even the system's detractors note that:

whatever its flaws, the value of artifact patterning lies in the fact that it is a universally recognized method for organizing large collections of artifactual data in a manner which can be easily understood and which can be used for comparative purposes (Joseph 1989:65).

Table 2.  
Artifact Pattern Analysis for the Shovel Test Collection

<u>Kitchen Group</u>			
Ceramics	46		
Glass	18		
Tablewares	1		
Can fragments	1	66	44.0%
<u>Architecture Group</u>			
Window glass	7		
Cut nails	25		
Cut nail fragments	36		
UID nails	7		
Other	1	76	50.7%
<u>Activities Group</u>			
Tools	2		
Storage items	1		
Misc. hardware	2		
Other	3	8	5.3%

The functional categories of Kitchen, Architecture, Furniture, Personal, Clothing, Arms, Tobacco, and Activities provide not only the range necessary for describing and characterizing most collections, but also allow typically consistent comparison with other collections.

#### Shovel Test Collection

The shovel tests, including the remains from the controlled metal detector recovery, produced 150 specimens (Table 2), most of which are associated with the site's architecture (such as nails and window glass). Kitchen Group Artifacts account for 44.0% of the collection (n=44). The only other materials present are items which fall into South's Activities Group (n=8, 5.3% of the assemblage). These include two crucible fragments used in the assaying of gold ore, a barrel band, two fragments of miscellaneous hardware, and three other items (melted or highly corroded iron).

This pattern, shown in Table 2, most closely resembles what has been called the Piedmont Tenant/Yeoman Artifact Pattern, developed by Drucker et al. (1984:5-47) (see Table 3). This pattern has been only tentatively proposed and a series of studies have suggested that tenant

Table 3.  
Various Artifact Patterns

Artifact Group	Revised Carolina Artifact Pattern <sup>a</sup>	Revised Frontier Artifact Pattern <sup>a</sup>	Carolina Slave Artifact Pattern <sup>a</sup>	Georgia Slave Artifact Pattern <sup>b</sup>	Piedmont Tenant/ Yeoman Artifact Pattern <sup>c</sup>
Kitchen	51.8 - 65.0%	35.5 - 43.8%	70.9 - 84.2%	20.0 - 25.0%	45.6% (40.0 - 61.2%)
Architectural	25.2 - 31.4%	41.6 - 43.0%	11.8 - 24.8%	67.9 - 73.2%	50.0% (35.8 - 56.3%)
Furniture	0.2 - 0.6%	0.1 - 1.3%	0.1%	0.0 - 0.1%	0.4%
Arms	0.1 - 0.3%	1.4 - 8.9%	0.1 - 0.3%	0.0 - 0.2%	-
Clothing	0.6 - 5.4%	0.3 - 1.6%	0.3 - 0.8%	0.3 - 1.7%	1.8%
Personal	0.2 - 0.5%	0.1%	0.1%	0.1 - 0.2%	0.4%
Tobacco	1.9 - 13.9%	1.3 - 14.0%	2.4 - 5.4%	0.3 - 9.7%	-
Activities	0.9 - 1.7%	0.5 - 5.4%	0.2 - 0.9%	0.2 - 0.4%	1.8%

Sources:

<sup>a</sup> Garrow 1992

<sup>b</sup> Singleton 1980

<sup>c</sup> Drucker et al. 1984:5-47 (no range was provided, but has been partially reconstructed for the Kitchen and Architecture Groups)

sites may produce significantly higher quantities of kitchen artifacts than proposed by Drucker and her colleagues, while yeoman farm sites come closer to representing the pattern's mean, regardless of whether they are located in the piedmont or coastal plain (see Adams et al. 1995 for a brief discussion). It seems therefore, that the artifacts recovered from the shovel testing are characteristic, or representative, of a yeoman farmer.

While the ceramics collection was small, an examination of the percentage of decorative motifs in combination with the types of other artifacts retrieved, should provide some meaningful information about either the wealth of the owner or how the Bechtlers chose to display their wealth to the community.

John Solomon Otto (1984:64-67) found that at Cannon's Point (a coastal Georgia nineteenth century plantation) the slaves tended to use considerably more banded, edged, and hand painted wares than the plantation owner, who tended to use transfer printed wares. The overseer appears to have been intermediate on this scale, although the proportions of decorative motifs were generally more similar to the slaves than the owner. Part of the explanation, of course, involves the less expensive cost of annular, edged, and undecorated wares compared to the transfer printed wares. While transfer printed specimens were present in the slave assemblage at Cannon's Point, they represent a variety of patterns and Otto (1984:66) suggests that either the planter purchased mixed lots of ceramics for slave use, or the slaves themselves occasionally made such

purchases. An additional, often advanced, explanation, involves the use by slaves of discarded ceramics from the main house.

Table 4 reveals that the vast majority (72.4%) of ceramics in the Bechtler shovel test assemblage were undecorated. However, it should be remembered that some of these undecorated wares are undecorated portions of decorated vessels. In addition, when whitewares (which dominate the Bechtler assemblage) were first introduced the plain vessels were preferred. Only later, when the novelty of the new style began to wear off, were the plain ceramics considered less desirable. If examining only those ceramics with decoration, edged wares, hand painted wares, and transfer printed wares are all nearly equally represented. Having no good comparisons for the Bechtler data it is difficult to press the data further, although the information from the shovel tests suggests that the Bechtler's had either a modest income or were very modest in their taste.

An examination of the different types of pottery present in the shovel tests reveals that porcelain, typically associated with high status tea servings, comprises only 2.8% of the collection while stoneware, primarily used for storage, accounts

Table 4.  
Ceramic decorative motifs  
from the shovel tests

Undecorated	21	72.4%
Annular	2	6.9%
Edged	1	3.5%
Hand painted	2	6.9%
Transfer printed	3	10.3%

Table 5.  
Major Types of Ceramics  
in the Shovel Tests

Porcelain	1	2.8%
Stoneware		8.6%
Alkaline glazed	2	
Other	1	
Earthenware		88.6%
Coarse	2	
Creamware	1	
Pearlware	6	
Whiteware	22	

earthenware category.

There was a sufficient quantity of datable ceramics to warrant application of South's (1977:217-218) mean ceramic dating formula. The shovel tests provided a mean date, using 30 ceramics, of 1840.4. This date is at the terminal end of the Bechtler occupation, primarily because of the relatively large quantity of plain whitewares, which have a rather long period of use and hence a relatively late mean date (Table 6).

The shovel tests also produced a broad range of nails — all of which were machine cut. These nails were first manufactured in the late 1830s and have uniform heads and shanks with burrs on the edges (Nelson 1968:7; Proess 1971:33-34). The 12 intact nails identified in the collection range from 3d to 9d, representing nails which might be used for small timbers (i.e., lathe) and shingles (3d and 4d,  $n=4$ ), nails used on sheathing or siding (6d and 7d,  $n=7$ ) and nails used in framing (9d,  $n=1$ ).

#### Excavation Units

The four excavation units, combined, produced 179 ceramics, only a slightly larger assemblage than was obtained from the shovel tests. One unit produced only four items, while even the most productive unit yielded only 76 items. There is, as a consequence, some reason for assuming that the shovel tests may actually provide a better overview of the site than the four 1 m units.

Regardless, when the units are combined

for an additional 8.6% of the assemblage. Earthenwares, the most common ceramic present, accounts for 88.6% of the collection (Table 5), with whitewares dominating the

they produce an artifact pattern rather different from the shovel tests, although it still fits within the Piedmont Tenant/Yeoman Artifact Pattern previously discussed (Tables 3 and 7). In fact, each of the four units produced a collection which better fits this pattern than any other thus far developed. This adds considerable support to the observations offered in the discussion of the shovel tests, that the Bechtler assemblage appears consistent with a yeoman farmer.

Undecorated pottery, as in the shovel tests, is the most common ceramic motif, followed by annular and edged, together accounting for 14.1% of the assemblage. Hand painted and transfer printed wares account for only a modest 3.4% of the collection. Consequently the excavation units suggest an even more spartan or modest assemblage than the shovel tests. Although this is likely the result of the small sample sizes, it is possible that the Bechtlers' slaves may have disposed of more refuse in and around the site than the Bechtlers themselves. Only additional archaeological research, not only at this site but also other Piedmont farms, can address this question.

Although no porcelains were found in the excavation units, the proportion of stonewares and earthenwares were very similar to the shovel test data (Table 8). In each case alkaline glazed is the most common stoneware and whitewares dominate

Table 6.  
Mean Ceramic Dates for the Shovel Tests

Ceramic	Mean Date		
	(xi)	(fi)	fi x xi
Overglazed enamelled porcelain	1730	1	1730
Creamware, undecorated	1791	1	1791
Pearlware, annular/cable	1805	1	1805
	undecorated	5	9025
Whiteware, blue edged	1853	1	1853
	poly hand painted	2	3696
	blue transfer printed	2	3696
	non-blue transfer printed	1	1851
	annular/cable	1	1866
	undecorated	15	27900
		30	55213

$$55213 \div 30 = 1840.4$$

Table 7. Artifact pattern analysis for the excavation units					
	124R154	135R130	160R142	160R154	Total
<u>Kitchen Group</u>					
Ceramics	-	21	39	23	83
Glass	2	3	11	9	25
Tableware	-	-	1	-	1
%	50.0	52.2	67.1	60.4	60.9
<u>Architectural Group</u>					
Window glass	1	8	3	5	17
Cut nails	1	12	16	15	44
%	50.0	43.4	25.0	37.9	34.1
<u>Furniture Group</u>					
Hardware	-	-	1	-	1
%	0.0	0.0	1.3	0.0	0.5
<u>Clothing Group</u>					
Buttons	-	1	-	-	1
%	0.0	2.2	0.0	0.0	0.5
<u>Activities Group</u>					
Tools	-	-	1	1	2
Storage	-	-	2	-	2
Other	-	1	2	-	3
%	0.0	2.2	6.6	1.9	4.0

the earthenware collection.

The excavation units reveal a somewhat later mean ceramic date of 1856.7 (Table 9). This is again the result of the dominance of undecorated whiteware, but is also partially the result of the excavation units containing no creamware and a reduced quantity of pearlware — both with earlier mean dates than whiteware.

The excavation units produced only 9 intact machine cut nails, ranging in size from 3d to 12d. Two (3d and 4d) represent nails typically associated with small timbers and shingles. Two are in the size range typically associated with sheathing or siding (7d and 8d). Five, ranging from 9d to 12d, are sizes associated with framing.

### Summary

#### Site Areas

Testing conducted at the Bechtler Mint reveal at least three specific site areas based on metal detecting and two specific areas based on

artifact density (with little overlap). When these occurrences are correlated with landscape features and site topography, it appears that the majority of site activities took place either on the top of the ridge or just to the north on a ridge plain. Only one structure can be identified with any degree of assurance. This is likely a smoke house or some other similar utilitarian building which was constructed on the northern edge of the site. The main settlement is represented by a broad area of artifacts, plantings, large rocks, and brick scatter on the north edge of the ridge top. This is also the area of the site dominated by looting and pot hunting. It seems likely, but cannot be conclusively demonstrated, that at least two additional structures existed — one to the south of the main settlement, also on the ridge crest, and a second to the southeast, on the side slope. This second structure is most likely also a utility building since it has been identified almost exclusively though the presence of nails in the metal detector survey.

The archaeological testing also suggests a site area measuring about 60 m east-west by 72 m north-south. The western boundary is the Jaynestown or Jeanstown Road. The northern, southern, and eastern boundaries are defined both by the gradual decline in artifacts and also by the sloping topography. The site core appears to measure about 50 m in diameter and to be centered on the ridge top and northern ridge plain.

#### Structural Remains

While at the present time it is impossible to isolate specific structures, the artifacts do provide some indication, as previously mentioned, of not only structure functions, but also possible construction techniques. For example, the

Table 8. Major Types of Ceramics in the Excavation Units		
Stoneware		10.8%
Brown	1	
Alkaline glazed	7	
Earthenware		89.2%
Pearlware	3	
Whiteware	54	



Table 9.  
Mean Ceramic Dates for the Combined  
Excavation Units

Ceramic	Mean Date (xi)	(fi)	fi x xi
Pearlware, annual/cable	1805	1	1805
undecorated	1805	2	3610
Whiteware, blue edged	1853	3	5559
poly hand painted	1848	1	1848
blue transfer printed	1848	1	1848
annular/cable	1866	4	7464
undecorated	1860	45	83700
		57	105,834

$105,834 \div 57 = 1856.7$

nails recovered suggest a wood frame structure with a wood shingle roof. The presence of framing nails is consistent with a structure built using balloon framing. The presence of window glass in the central site area documents glassed windows. More significant, however, is the absence of other architectural hardware, such as hinges, shutter hooks, and door locks. The absence of these materials suggests that the structure may have been salvaged after abandonment. The artifact assemblage also reveals evidence of burning, supporting the historical accounts that the house was burned. Since no burned architectural hardware was found, it seems likely that the burning took place both after the house was abandoned and also after it was salvaged of useful material.

The excavations failed to identify any sand or clay floors which might have underlain the Bechtlers' mint. This indicates that the account of such sand or clay floors is nothing more than a local legend.

Likewise, the excavations failed to reveal any significant quantities of artifacts either around or east of the mine shaft entrance. This, coupled with the topographic location of the entrance on a relatively steeply sloping side slope, indicates that no portion of the Bechtler house was constructed over the shaft. As previously discussed, there is much better evidence supporting a structural location to the west or possibly west-northwest of the shaft.

## Artifacts and the Bechtlers' Lifeways

Relatively few artifacts were recovered by the excavations, most likely an indication of the Bechtlers' German heritage and their disposal of artifacts at some distance from the site. Those artifacts which were present do help provide some idea of the lifestyle of the Bechtlers. The ceramics are generally plain, with relatively few decorated styles. This suggests a relatively modest household, although we can't be sure whether this reflects a lack of money or simply a modest taste. The single tumbler fragment recovered is of a clear soda metal with simple flutes. The only other kitchenware items recovered are kettle and pan fragments. Arms, tobacco, and personal artifacts are completely absent. This may be significant, indicating something about the lifestyle of the Bechtlers, or it may simply be the result of the small sample size. The single furniture artifact was a small iron drop hook. Only one clothing item was recovered — a white porcelain button.

Activities Group Artifacts include a range of items typical to farmsteads, such as horseshoe fragments and miscellaneous pieces of iron. This category, however, also includes two crucible fragments — one is of soapstone and the other is porcelain — and two fragments of sheet mica. The crucibles were most likely using in either the assaying of the gold ore or in melting of the gold for use in coinage or jewelry. The mica may be remains of view ports in furnace or oven doors (since there seems to be no on-site source for the mineral). Given the relative sparsity of domestic artifacts, we are very fortunate to identify any items which potentially relate to the Bechtlers' minting activities. Absent from the collection, however, are any remains associated with either hard rock mining or ore processing. This absence of screen, collar or boss fragments, set screws, wrought eye bolts, stamp mill washers, wedges, tappet keys, "merchantable iron," or mining tools (such as drift picks), suggests that virtually no hard rock mining or ore processing activities took place in the site area. This would appear to be supported by the absence of tailings or rock fragments associated with the mine shaft entrance.

Just as interesting as the individual artifacts are the artifact assemblages or patterns,

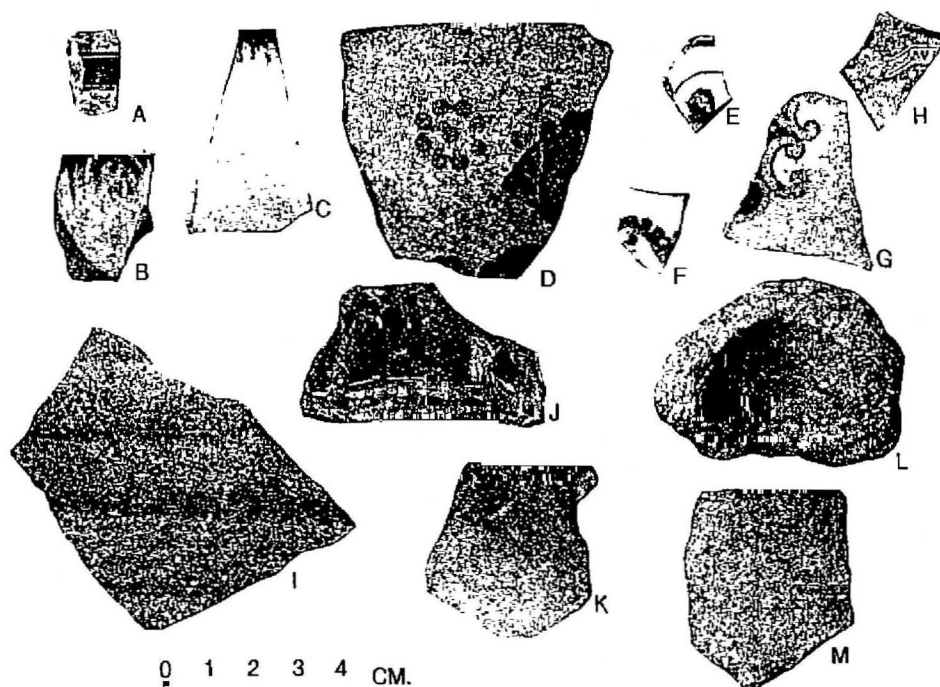


Figure 12. Artifacts from the Bechtler site. A, annular whiteware; B-C, blue edged whiteware; D-F, polychrome hand painted whiteware; G-H, blue transfer printed whiteware; I, alkaline glazed stoneware; J, clear glass tumbler; K, steatite crucible; L, crucible base; M, possible crucible pouring lip.

which have been characterized as suggesting a yeoman farm of modest means. With a slight dominance of architectural remains over kitchen artifacts, this suggests that the structure was fairly substantial and that domestic artifacts are relatively uncommon. Again, it is impossible at present to know if this was by design (i.e., that it represents the Bechtlers' choice) or whether it indicates some degree of poverty. The artifact collection certainly suggests that whatever wealth the Bechtlers may have had was not channeled into material possessions.

#### Site Eligibility

This site is recommended as eligible for inclusion on the National Register of Historic Places under Criterion D. Taken in the context of limited archaeological research at other Piedmont farmsteads in the Carolinas, the site appears to be significant at a state-wide level, offering the

opportunity to examine a wide range of significant research questions regarding farmsteads, mining and minting operations, the interaction of blacks and whites in the piedmont, and the possibly ethnicity of German-American settlers. In addition, it is possible that the site may be eligible under Criterion A, which includes sites which are associated with events that have made a significant contribution to the broad patterns of history, perhaps at a state-wide, or even possibly national level of significance. This is based on the importance of the Bechtler site in the numismatic and financial history of North Carolina and the nation during the late antebellum period.

As previously discussed, the first step in the evaluative phase, was the identification of the site's data sets. Specifically, we identified that the site a variety of artifacts, the presence of features, and the potential for patterned landscape features and intra-site clustering of artifacts. It does not



matter that the artifact density is relatively low — this may be either the result of the Bechtlers' wealth or may possibly even be associated with their ethnicity. What is important is that artifacts were found are likely capable of assisting us in better understanding how the Bechtlers lived (status and possibly ethnicity) and how the site was used (farming, minting, and possibly mining). The features identified in 160R142 indicate that not only sub-surface remains present and recoverable, but that these features may be capable of providing additional information on architectural remains and refuse disposal practices. Finally, landscape information — the presence of remnant plantings and the correlation of plants, topography, and artifacts — offer yet another data set which may be used to interpret activities which took place on the site.

A very generalized historic context was offered in the historical synopsis of the site and the brief overview of research at other Piedmont farms. It is significant that relatively little archaeological research has been conducted at similar sites. While the Bechtler site is commonly thought important because of the Bechtlers' contribution to and participation in the North Carolina gold rush and being the first private mint for coinage, the context also reveals that the site is important for what it can tell us about yeoman farmers and especially about German-American lifeways in the late antebellum.

A wide range of potentially significant research questions have been suggested for exploration at the Bechtler site, including those related to the role of yeoman farmers in this section of the North Carolina Piedmont, the interaction of whites and blacks on yeoman farms, the interaction of masters and their possible live-in apprentices, the ethnicity of German-Americans in the Piedmont of North Carolina, refuse disposal practices as they relate to both ethnic and geographical settings and patterns, and the impact of antebellum farming, mining, and minting practices on the natural environment. All of these, to one degree or another *can* be addressed by the data sets identified at the site. Further, all have sound bases in the historical and archaeological context previously developed.

The next aspect of the evaluation, of course, is documenting that the site's archaeological integrity is adequately to allow these research questions to actually be addressed. In other words, questions are relatively easy to come by; unfortunately many sites simply don't have the integrity to allow the identified questions to be examined. The areas of concern, as previously mentioned, are locational integrity, design integrity, integrity of materials, and associative integrity.

Locational integrity means that discernable patterning is present at the site. If a site lacks patterning, then it likely lacks locational integrity. Historical archaeological sites almost always exhibit this form of integrity and the Bechtler site is no exception. Little of the site appears to have been lost to plowing or silviculture. The greatest loss, to site looters, has certainly impacted our ability to interpret the remains, but does not *prevent* the site from addressing a range of significant research questions.

Integrity of design is often addressed as intra-site artifact and feature patterning. Indeed, we have seen that not only do the artifact patterns appear to resemble a previously identified pattern, but the artifacts appear to form intra-site concentrations or clusters, at least some of which may represent specific structures.

Integrity of materials is typically seen as the completeness of the artifact/feature assemblage or the quality of feature or artifact preservation. Although the Bechtler house is no longer standing, there is good evidence that the archaeological remains can help us reconstruction something concerning this structure. Aspects of the landscape can help us better understand what the site looked like when it was occupied. And the features present on the site can help reconstruct refuse disposal and perhaps even intra-site patterning.

Finally, associative integrity is often explored in the context of how strongly associated the data set is with important research questions. There seems to be a very strong association between the Piedmont Yeoman Artifact Pattern and the artifact classes recovered at the Bechtler site. There likewise seems to be a very strong association between the general sparsity of remains and refuse disposal patterns attributed to German

populations. These strong associations between the site's information and questions proposed further supports its eligibility.

The final aspect of the evaluative process is to determine which of the research questions can actually be addressed at the site. This testing, for example, suggests that very few (if any) data sets are present which can realistically address questions concerning hard rock mining or ore processing. Consequently, questions focusing on how small families pursued mining operations, or how ore processing was conducted in this part of North Carolina are not appropriate for the site. Likewise, the extensive looting *may* have destroyed archaeological evidence of the structural footprint. It may therefore be impossible to address questions concerning the actual use of space and the origin or adaptation of different architectural styles at the Bechtler site. We have avoided outlining research questions which likely cannot be addressed by the Bechtler site.

## SITE PLANNING ISSUES

### Introduction

Having discussed the Bechtler site, its history, and its archaeology, it is appropriate now to turn to the issue of how this site may be preserved and how it may benefit the public. We do not, however, wish to mislead. Given the limited funds, planning was not the primary goal of this study and this section offers only a broad overview of some of the major issues. In spite of the superficial coverage in some areas, this still offers an excellent "action plan," outlining essential issues and major hurdles. It may also offer the Rutherford County Historical Society a place from which discussions on the site's future may begin.

There is clearly much to be done. In many cases there is an obvious sequence of events. Where there isn't, we have tried to offer some additional guidance. In general, assuming that funding is available, all of these issues can be resolved and actions implemented, within the scope of a year. We do not mean to imply that any actions should be rushed. In fact, many of the actions proposed will require the collaboration and partnership with a wide range of other organizations. But careful and dedicated collaborative action does not mean that the planning process must drag on for years. Whatever momentum the project may develop will surely be lost if clear action and measurable progress is not achieved quickly and decisively.

### Protection of the Site

The Bechtler site has been poorly treated for a number of years. A number of individuals, thieves of time, have sought to convert the public's heritage into their own private ownership. Using metal detectors and shovels they have seriously, and irreparably, damaged some portions of the site.

This damage will continue. The best

information available from a variety of public and private sources reveals that site looting is increasing across the county. The trade in illicit antiquities in the United States rivals that of illicit drugs (Trinkley and Vartorella 1993).

Rutherford County **must** take action to protect the Bechtler site from additional looting. This involves three high priority steps:

- County Council must enact an ordinance protecting (minimally) this site. The ordinance would make it a criminal offense to damage, dig, destroy, or remove any artifacts from the site. Having a metal detector on-site would be prima facie evidence of intent to loot and would be an offense against the ordinance. There are local ordinances from surrounding states which may be used as a model.
- The County Council or the County Manager must specifically direct the Sheriff's Office to patrol this site. A law without enforcement is more than useless, since it indicates that the County has no real desire to protect the resource and site vandals will be reassured that they face no threat of prosecution.
- The County must clearly post the law at the site and must advertise the new ordinance in the media. This effort should be coupled with a plea to the public to help preserve the site. It is likely that the best enforcement will come from neighbors of the

site, who may be convinced to report unusual activities. If necessary, local individuals should be approached individually.

Associated with site looting, there is also considerable evidence of improper site use. For example, the site appears to be used as a local hang-out, as evidenced by beer cans and articles of clothing. This has resulted in the fence surrounding the mine shaft entrance being damaged and has likely resulted in unnecessary wear and tear on the site as a whole. Eventually, this sort of activity will result in a tragedy — someone will either be injured on-site or perhaps even killed in the mine tunnels. As tragic as this would be in its own right, it will also create an understandable back-lash against the site, with some members of the public urging that the site be "made safe" by closing off the mine shaft.

To protect the integrity of the site, Rutherford County **must** increase site safety. This involves, minimally, two steps.

- The County must repair the existing fence surrounding the mine entrance and post it as being a potential danger.
- The County must institute a plan of periodic inspections to ensure that the integrity of the fence and to collect litter from the site.

Another potential threat to the site involves fire. The most recent data available to Gade et al. (1986:Figure 2.21) shows that Rutherford County has a high fire occurrence rate, with 283-407 forest fires reported annually, compared to moderate rates in all of the adjacent counties. Understandably, the adjacent property owner has a considerable investment in timber and desires to protect that investment from fire. During the recent past a fire in the area resulted in the placement of a fire lane through a portion of the site. Had this lane been excavated further to the north significant damage might have been done. Placed on the edge of the site as it was, the damage was minimal, but such risks are

unacceptable. In addition, there are a range of other potential hazards faced by the site. These include timber loss through ice storms or tornadoes. Improper recovery techniques (i.e., logging) after severe storms are likely to cause more damage to the site than the storm itself. Another possible disaster is the collapse of a portion of the underground tunnel. Without prior planning the first response might be to simply dump fill dirt in the sinkhole.

To protect the site the County must plan for a broad range of predictable disasters and establish clear and consistent disaster recovery efforts. The County must take two steps:

- The County should request that Bowater establish a grassed buffer zone around the site to help control the fire threat and also request that Bowater enter into an agreement specifying that no fire lanes will be placed on the County's property, except as absolutely necessary for the prevention of loss of life.
- The County should immediately retain a consultant to prepare a plan for the site which specifically outlines disaster planning and recovery issues. Once completed, this must be approved by County Council and the County Manager must ensure that its provisions are understood by all appropriate departments.

#### Development of the Site

The first and most fundamental issue in the development of the site is **choosing a theme**. Exactly what is the goal of developing the Bechtler site? Every successful interpretative program has a single, fundamental, and consistent theme which provides the "plot" for the entire story. This theme must be uppermost in all aspects of the project. Attention must never be allowed to drift from this theme, nor should "secondary" ideas or concepts ever be allowed to cloud the importance of the theme.

The theme should be easily, and understandably, stated in a single sentence. Keeping this one sentence constantly in mind will help to clarify many of the questions which arise during other aspects of site planning. The theme must also tell an important story about the site and that story must enrich the visitor's experience. The theme should answer the question, "why has this site been set aside?" The theme must be made understandable to the average person who possibly has much less historical background than the average member of the historical society. Finally, as a constant test of the theme, ask yourself if visitors would be able to identify the theme as they strolled through the site or read the signage.

While we are not prepared to recommend that one sentence theme, we believe that there are a variety of issues which should be integrated into the theme. These include the historical significance of the site in terms of gold and coinage, the site as representative of the yeoman farm, and the site as an environmental or ecological resource. We do not believe that the site can be appropriately interpreted as either a mine or in the context of ore reduction. There is no compelling historical, archaeological, or technological evidence of these activities on site (excluding the shaft which is not suitable for tours).

The Rutherford County Historical Society must focus the interpretative efforts and ensure that site planning is conducted in a consistent fashion. This involves essentially one step:

- The Rutherford County Historical Society must develop a concise one-page thematic statement which concludes in a one sentence theme for the Bechtler site. This theme must then be used as the measure for all other actions at the site.

It is likely that a broad range of actions will be necessary to allow any meaningful activities to take place at the Bechtler site. At the present time it is essentially inaccessible and uninterpretable. There is no signage. There is no safe parking. There are no visitor amenities. There are abundant hazards, ranging from poison ivy to

sink holes to rotted tree stumps. The site lacks visual appeal and fails to present anything which is likely to interest most members of the public. As it currently exists a site visitor would most likely express considerable disappointment. This disappointment might result in a reduced willingness to support public efforts at the site and erode support for historic preservation initiatives. Consequently, we believe that the steps outlined here are of considerable importance and, in fact, are essential to virtually any theme statement.

First there must be access to the site. This will involve creating access roads from Gilboa Church Road to an off-road parking area east of the railroad tracks. The parking area, of necessity, will destroy the remnants of Jaynestown or Jeanstown Road. Although this is regrettable, we have been unable to identify a practical alternative. Associated with this planning, of course, are safety issues associated with the blind hills and curves of Gilboa Road. A traffic safety study, for example, may be necessary. Certainly advance signage is extremely important and it may be appropriate to relocate the state historical marker to better associate it with the actual site.

From this parking area, which should be designed to handle both passenger cars and school buses, there must be at least one circular path, allowing pedestrian traffic through the tract in a manner consistent with the identified theme. For example, focusing on the historical significance of the property, signage could begin at the parking area which provides background and the path could slowly lead up to the ridge crest, where additional signage might explore the Bechtlers' house and landscape. Integrated into this self-guided tour might be raised planters illustrating a variety of native North Carolina plants. Other ecological issues might be the impact of pine plantations on the native ecology, the historical impact of erosion and its relationship with cultivation, and the place of fire in maintaining the ecosystem.

For this approach to work, the pines on the site must be logged. This will require very careful attention to preservation criteria to prevent damage to the site. Essentially, the loggers must operate only during dry weather, only rubber tired vehicles must be allowed on-site, skid trails must

be avoided, and the staging area must be situated off the ridge crest, perhaps in the area which will eventually be used for parking. In so far as possible, an effort should be made to remove trees to the adjacent property for processing, since this will reduce damage to the actual site. Special care must be taken to avoid damage to any of the features of the site, including the landscape plantings or the mine shaft.

Logging may be selective to leave small areas of pine and it may be appropriate to leave the hardwoods on the site. The County must realize that logging will create a large number of stumps which will rot through time and require periodic maintenance to prevent hazardous holes. It also may be appropriate to plan for one or more small picnic areas, shaded by carefully maintained trees.

Elsewhere after logging the ground should be lightly raked by small tractors to gather up brush and other debris. Afterwards log areas (i.e., sink holes and looter's pits) should be identified. Barrier fabric should be laid in these areas and they should be restored to the surrounding contours. It is essential that in all areas these changes be *additive*. In no circumstance should any soil be removed or moved on-site. Once the topography is evened, the site should be planted in a ground cover, appropriate to the hardness zone, the amount of traffic anticipated, and capable of surviving drought. Areas suitable for raised beds should also be identified. Since these plants will likely require additional sources of water, the raised beds should be located where placement of shallow water lines will not affect the archaeological remains.

The construction of the pathways themselves should not only be environmentally sensitive, but also ensure access to the site by handicapped visitors. There are likely a variety of options, ranging from plank paths or boardwalks to the use of soil cements to produce hardened pathways. Natural pathways should generally follow ground contours to minimize the potential for erosion. Paths of sawdust, pine bark, earth, or gravel should be avoided since these create impassible or hazardous substrates for wheelchairs, walkers, canes, and crutches. The pathway should also be constructed with other safety issues in

mind.

The entire site area should be fenced and the parking area should be closed and locked after dark. This is necessary to prevent unauthorized access to the site, limit vandalism, and reduce the liability to the County. It will, however, mean that the County establish a procedure for the opening and closing of the facility on a daily basis. Hours must be posted and they must be maintained in order to gain and maintain public acceptance.

The main shaft entrance must be stabilized. This will include the removal of downed trees, the cleaning of refuse and silt from the entrance, the stabilization of the exposed side walls (perhaps using timbers or interlocking landscape blocks), and the planting of ground cover vegetation to maintain the integrity of the soils and appearance of the shaft.

In sum, Rutherford County, in conjunction with the Rutherford County Historical Society and a site consultant, must:

- Construct access roads and a parking area for the Bechtler site;
- Log the site using appropriate techniques sensitive to the archaeological resources;
- Design and build accessible, environmentally sensitive, pathways appropriate for a self guided tour of the site;
- Create picnic and other passive use areas, as well as raised beds for native North Carolina plants;
- Stabilize, contour (through only an additive process), and plant the site after logging;
- Fence the entire site and create procedures for opening and closing the site on a set schedule; and
- Stabilize the shaft entrance.



### Promotion of the Site

Once the site has been developed, it is essential that the community know that it is available for use. Since the promotion effort must be on-going and begin even before the site is open, we have selected to discuss this topic ahead of site interpretation.

There has been some discussion of the site's potential for heritage tourism. We have not conducted any detailed feasibility study, but will briefly discuss this option for site use. Heritage tourism positions sites such as the Bechtler Mint to attract regional, national, and even international tourists who seek travel opportunities that emphasize the heritage and culture of a city or region. There are several very important components of this approach. There is always the need for collaboration and partnership with other organizations. Rarely can a single organization or entity "pull-off" a successful heritage tourism undertaking. This is certainly the case with the Bechtler site where there is, frankly, relatively little to see or do. The site **must** be integrated with other activities to make a package — and this requires collaboration. Tied to this is the second issue. Successful heritage tourism projects offer diversity, since this helps to maximize the market share which can be drawn in. Diversity, as might be imagined, also means collaboration.

Heritage tourism, like all other ventures, has both "pros" and "cons." On the positive side, heritage tourism can result in increased attendance at historic sites, increased revenues both at the site and in the community providing support services, higher visibility of the site in the community which may translate into greater economic returns, and finally, broader recognition. Drawbacks include the increased wear and tear on sites which comes with increased use, visitation by non-preservation minded individuals who may dilute the interpretative efforts, the need for increased support facilities which may drain reserves, and the probability that individual sites will give up some of their autonomy in order to create collaborative ventures.

For the Bechtler site to develop a successful heritage tourism program it is essential

that the County and the Historical Society:

- Develop a regular planning process to create the collaborative atmosphere necessary for project success;
- Have in place a system of tracking and evaluating use so the heritage tourism efforts themselves can be evaluated and the impact on the site can be quantified;
- Demonstrate organizational flexibility, since there will likely be a need to "fit in" with other groups as an overall package or program is developed; and
- Develop an entrepreneurial approach to help integrate new techniques, explore new marketing options, examine new partnerships, and quickly act.

Even if it appears that such a broad based heritage tourism approach is beyond the immediate ability or interest of the County and Historical Society, it is still appropriate to explore other means of making the site useful to the community.

Promotion may consist of advertising the facility as a passive park, focusing on how the site provides the citizens of Rutherford County with a passive recreational facility. Since we are not familiar with the County's current recreation plan it is difficult to determine how this site might fit into a broader framework.

The County, perhaps in association with the Chamber of Commerce and the Rutherford County Tourism Development Authority may wish to develop a full color brochure for the Bechtler site. We would caution that this brochure must be at least as good, if not better, than those used to successfully promote such attractions as Biltmore House and Chimney Rock.

Another approach would be to integrate the site into the school district. By developing an



integrated curricula which includes history and science, it would be possible to focus a great deal of attention on the Bechtler site. It is situated very close to the local high school and the site could serve as a living laboratory for a broad range of ecological and historical studies. We are inclined to believe that this, at least for the present, may be the highest and best use of the site.

Consequently, our recommendations to the County involve four steps:

- The County, in conjunction with other appropriate partners and a consultant knowledgeable in heritage tourism, should explore their interest in developing a heritage tourism package. Special attention must be given to the site's potential to successfully compete in the local market.
- The County should examine its current recreational facilities plan and determine if it is appropriate to integrate the Bechtler site into this existing plan as a passive park. This integration, if undertaken, should still carefully follow the recommendations offered elsewhere in this section and it should be clearly understood that the Bechtler site is appropriate *only* as a *passive* park.
- The County and the Historical Society should explore, using a consultant familiar with the development of integrated curricula, the potential of making the Bechtler site a "living laboratory" with the school district.
- The County, with appropriate partners, should develop a carefully crafted promotional full color brochure for the Bechtler site. This, however, should only be done after the site's theme and

anticipated use has been fully explored and decided upon, since the brochure should be designed to facilitate these goals.

#### Interpretation of the Site

A first step in a successful interpretation program is to understand what the program hopes to accomplish. In other words, exactly what are the goals of the interpretation?

Appropriate interpretation must foster proper use of the site and must develop advocates for the site. It must encourage public participation in the management of the site. It must, at the same time, provide recreation to the visitor while heightening the visitor's awareness and understanding of the site. Ultimately, good site interpretation will inspire the public and add a new perspective to their lives. After years of interpretation at historic sites, museums, and parks, we know that there are certain common principles for success.

Everything at the site must be part of a unified whole. The visitor must receive one message, not a series of conflicting stories or unrelated concepts. This, of course, is why interpretation must be based on a unified theme. Only once you know what is important at the site are you in a position to develop appropriate, and successful, interpretative signage. We also realize that learning (and we are asking the public to learn something new) is best and most successful when it is closely associated with the real experience. It is always best to include concrete objects. It is also essential that the exhibits and signage are compatible with the site. The interpretation should enhance the on-site experience, not detract from it.

Finally, and in many respects most importantly, the best interpretation is short and concise. Too often historic sites attempt to stuff in every possible detail and fact about the site. Visitors become easily bored and tired. Most will not read more than a few lines — ignoring the long, tedious texts and complex messages. The goal must be to encourage interest, not bore the visitors.

We would recommend the use of perhaps four to ten panels in different parts of the site, although the exact number (and their placement) will depend entirely on the theme selected for the site and the decision concerning site use. More panels with good graphics and short text are preferred to fewer panels loaded with text. We also believe that it is essential to have braille signage.

In terms of the type of signage used, we have examined a broad range of sign types, including wood, metal-micro imaging, porcelain enamel, metal, and fiberglass embedment. Each has advantages and disadvantages. In general, we believe that the fiberglass embedded signs offer the greatest interpretative potential and flexibility. The current cost of these signs is about \$2,000 to \$2,500 per sign. It is likely, however, that a variety of sign types will be appropriate for different purposes on-site. There will also need to signs providing the direction of the path, indicating that the site is protected by law, that the mine shaft is hazardous, identifying the various native plants, establishing the hours the site is open, and so forth.

In this area, as many others, the County and the Historical Society would be best served by retaining a consultant to help clarify the issues involved and work to establish an interpretative program, including the design of the signs and the associated label copy.

### Summary

The Bechtler site has exceptional historical and archaeological significance. This significance can be conveyed to the public, but only with very careful and detailed planning.

The first step in the process has been completed, with this intensive archaeological survey and an overview of the resources present at the site. Our discussion in this last section of the study is intended to provide only an overview of the issues involved in the use of the Bechtler site. It offers a check-list for the Rutherford County Historical Society and can be used to help justify additional funding, but is not intended to be a detailed discussion of the different techniques or approaches.

The next appropriate step, once additional

planning funds are identified and secured, is to retain a consultant to begin the process of refining these issues and exploring different site options with all of the parties involved.

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